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THE
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of Birds in the Field
and the Official Organ of the

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Edited by
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A Young American Bittern, not a Pterodactyl

Kingbird Shading Her Young

Photographs by Alvin R. Cahn.

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THE MENTALITY OF THE CROW

BY WILLIAM BREWSTER TABER, JR.

That the Crow is wise is the general consensus of opinion, and the usual belief is that it is very wise indeed. It is even credited with mental processes comparable to those of an intelligent human being. Recently in the *Atlantic Monthly* there appeared an article which illustrates what an exalted opinion of the Crow's intelligence is sometimes held by serious-minded people. It reads as follows, "A colony of rooks, perhaps the most intelligent of the crow tribe, was recently observed sitting in solemn conclave, like the Church authorities round the Jackdaw of Rheims, about the person of one of their numbers. Their notes rose and fell with that harsh variation that always suggests conversation and debate. It continued for a while, when the assembled judges and juries suddenly fell upon a delinquent and put him to death. Why he was killed, what incident had preceded, the observer did not know; but of the deliberate killing, preceded by a period of debate, there seemed to be no doubt. Quite certainly rooks are as capable of communal action as the hive bees, but it proceeds from a motive power that is less instinctive, that is more reasonable. The rooks condemned a citizen to death in the straighforward human meaning of the phrase.

That crows converse is a generally accepted notion. Even so eminent an authority as Chapman writes, "No one who has listened to Crows will doubt that they have a language. But who can translate it?" Such opinions of the Crows' mental ability brought to mind the question whether they should be considered as reasoning and thinking animals, conversing in a manner similar to human beings, or as creatures like our other birds, subject to the all-powerful influence of instinct.

Although my attempts to trap Crows met with only partial success, their actions disclosed much concerning their mental processes. Experienced bird banders have learned to take advantage of the instincts, which psychologists have divided into three main groups, namely, self preservation, reproduction, and the herd instinct. When possible,

conditions about traps are so arranged that two or all of these instincts are played upon. For instance, suitable food or water placed under attractive conditions appeals to the self-preservation instinct. Likewise, during the gregarious season call birds appeal to the herd instinct. When the pull of these two instincts is combined, captures are practically certain to result. But let a Sparrow Hawk appear on the scene, then if the birds are small, self preservation opposes the herd instinct and no captures are possible until the fierce falcon has gone.

What then should be the procedure? Would it be necessary to disguise or hide the traps so they could not be recognized as such, and in case captures were made would it be necessary to empty the traps only after dark for fear lest some Crow would establish the connection between trap and man, and communicate it to others? Or would it be best to disregard the supposed super-bird mental qualities with which they are credited, and play upon their instincts?

For several weeks all attempts at trapping were futile. Snares, steel traps, several varieties of traps, large and small, built of wooden frames covered with poultry netting proved useless. Even the humorous adventures of Max and Moritz were called to mind, and an attempt was made with pieces of meat tied to strings in the hope that they would be swallowed string and all, and the birds thus secured. But it was of no use.

Finally a single Crow was caught. It was done with a simple drop trap eight feet long by four feet wide, the sides and ends made of 1x4-inch lumber, and the top covered with 2-inch poultry netting. No attempt was made to disguise or hide it. It was set vertically on its side and pulled over by a wire extending to a distant blind. The bait was a rabbit carcass and a few eggs, while a hog carcass was placed a short distance away as a general attraction. As it was February, the gregarious season, this Crow was placed in a large cage immediately behind the trap and used as a call bird. It proved to be effective for two days later another one was caught, and then others at frequent intervals. These first Crows were kept as call birds, and it was found that the more of them the greater was their attraction.

As soon as a bird was caught it was immediately removed from the trap regardless of how many others were present to witness. As a rule the witnesses were numerous, for upon the fall of the trap those feeding on the nearby hog carcass would rise into the air and set up a clamorous cawing, which attracted many others. Frequently before the trap could be reached a hundred or more would have gathered circling low over my head raising a great din and uproar. Could it

then be supposed that those witnessing this scene communicated the danger of this trap to others? Did they even realize the connection between the trap and man? Not possibly, for the catches continued, sometimes as many as four in a single day, accompanied by the same excitement, the same uproar, and the same gathering of distant crows who witnessed the removal of the captured one.

Still another incident helped to show that the Crow's mentality is not much higher than that of other birds. To realize the pertinence of this statement the effect of the falling trap upon the crow must be described. Crows are very suspicious and alert, and extremely quick to take wing. To catch them with this trap it must be pulled over with great force, or else by a quick leap backward and a single flap of the wings the Crow will escape. In every case the Crow was actually in the air when it was struck by the wire of the falling trap and knocked to the ground. This must have been a very terrifying experience. Yet one repeated. This Crow, 223674, was captured February 24, and held as a call bird until March 23, when it was released. It repeated on March 26, and again a few hours later the same day. On March 28 it was caught again. This conduct is typical of other birds, and like other birds, Crows must have very short memories for terrifying experiences.

If then Crows' behavior about traps indicates that their mental processes are very similar to those of other birds, how is it that they have survived man's persecution for a hundred years or more, and with apparently undiminished numbers? From observation of their approach to the bait, it is evident that their survival is due to fear, which results in extreme caution. It is common for an individual to take many minutes to traverse the last two or three feet of its approach to a perfectly harmless, very dead carcass; and this after a thorough inspection from the air, a nearby fence post, or a safe distance on the ground. Even then sometimes their fear overcomes their hunger and the bird flies away. They have learned to examine all food with great suspicion and to shun man as a dangerous enemy.

Have they a language? Yes, a language of action, as with other birds. Just as a mariner entering an uncharted harbor watches the course of other vessels and from their actions knows the windings of the channel and where lies the treacherous shoal, so the Crow watches his fellows and from their actions knows where there is some hidden danger. When two or three have found it safe to feed upon a carcass, others which have been watching to see the results of their boldness show a marked degree of less caution, some individuals even alighting

on the food directly from the air. Whenever a number are gathered in close proximity upon the ground their black backs cry the message to the wide heavens for all that fly to see, "here is food and safety." Crow and Vulture read the sign alike.

Are Crows conscious that their actions are carrying messages to their fellows? I doubt it. Just as an excited crowd of human beings unconsciously attracts others from as far as it can be seen or heard, so the crowd of noisy Crows circling over my head attracted others to the scene.

It is fully realized that behavior about a trap does not by any means tell the whole story of a bird's mind. But still the lessons that can be thus learned have much value in judging their mental ability.

KANSAS, ILLINOIS.

HIGHWAY MORTALITY AND SPEED OF FLIGHT

BY LYNDS JONES.

The writer has crossed the United States in automobiles, from Oberlin, Ohio, to the Pacific coast, nine times from east to west and eight times from west to east. The total mileage is above 60,000. The states traversed include all of those touching the Mississippi River and west of it, except Oklahoma and Kentucky; and of the states east of the river the following were crossed: Ohio, Indiana, Pennsylvania, Delaware, Maryland, District of Columbia, Virginia, North and South Carolina, Georgia and Florida. All but one of the trips have been class trips with a party of students, with from two to six cars, four persons to the car. The one exception was a trip west in the autumn and east in the spring with one car and two passengers, in 1925-26.

Among the studies undertaken on these trips was the counting of the dead animals noted on the roads, particularly the birds, and the speed of flight of such birds as flew parallel to our line of travel. Someone in the first car and someone in the last car was delegated to make the counts of the victims, but everybody was expected to note the flight.

All victims were recorded, whether or not determinations of the species could be made. Of course, when the species was known the name was recorded. Impressions of the numbers seen without making actual counts were compared with the actual numbers, and the impressions were invariably too high.

The first trip was made in the summer of 1919, beginning in late June, continuing through all of July and August, and into the first week of September. The route was across northern Indiana, central

Illinois, Iowa and Nebraska, across Wyoming to Yellowstone Park, Idaho, northern Oregon and western Washington, and home through the northern tier of states to Wisconsin. In that year paved roads were the exception, and there were many miles of barely improved roads. Therefore the speed of travel was much slower than it is now. Dead birds in the road were relatively few, but the numbers of rodents and snakes, particularly from Nebraska westward and northward, were more numerous than we found them on the last trip. Dogs and chickens were more numerous then, cats fewer than now. As pavements have increased and the speed of travel has accelerated there has been a change in the kinds of victims found on the road, as well as in the numbers. In the drier parts of the country the jack rabbits still lead in numbers. In the prairie sections the ground squirrels lead in numbers. Among the birds the English Sparrow comes first with 57 in 1926, the Red-headed Woodpeckers second with 31. The next was Bronzed Grackle, six; then Flicker and Kingbird, five each; four each of Robin and Dickcissel, three each of Sharp-tailed Grouse, Western Meadowlark, Crow, Western Crow, Black-billed Magpie, Raven, Song Sparrow; there were two each Prairie Horned Lark, Desert Horned Lark, Northwest Crow, Vesper Sparrow, Brown Thrasher; one each of California Gull, Turkey Vulture, Swainson's Hawk, Mourning Dove, Bob-white, Nighthawk, Yellow-billed Cuckoo, Texas Woodpecker, Arizona Woodpecker, Red-shafted Flicker, Arkansas Flycatcher, Red-winged Blackbird, White-necked Raven, Western Vesper Sparrow, Field Sparrow, Grasshopper Sparrow, Pale Goldfinch, Lark Bunting, Migrant Shrike, Curve-billed Thrasher, Western Mockingbird, Western Robin, Bluebird, Mountain Bluebird. It is likely that the Swainson's Hawk and the Prairie Falcons were not killed by cars, but that somebody shot them and brought them to the road. Certain tourists have that habit. This was the 1926 count of birds, over an 11,000 mile trip, that included the southwestern and southern states in the return.

A trip made from September 17 to October 23, 1925, with one car and two people, but over the same route as that of 1926, yielded 15 English Sparrows, one Crow, one Florida Gallinule, one Pheasant, one Magpie, one Swainson's Hawk, and three Sparrow Hawks. There were also four skunks, one rat, one mouse, four squirrels, one spermophile, twenty jack rabbits, one dog, one cat, one horse, three snakes, seven turtles, one frog, fifteen chickens. But this was but 3,500 miles and ended at San Francisco.

The question is "Does the automobile materially help in reducing the numbers of our native birds?" The 1926 trip was typical of the series, and probably represented a fair average. In 11,000 miles there were 106 native birds found on the roads traversed. Of these one was a Swainson's Hawk and three were Prairie Falcons, which were probably not killed by automobiles. If 106 represents the daily average for the entire year of 365 days we would have 38,690 native birds killed by automobiles during a year. These distributed over 11,000 miles make approximately three birds per mile. But some of the victims were certainly not killed on the day that we saw them, since they were flattened out by the passage of many wheels, and dry. And of the 106 there were 31 Red-headed Woodpeckers, leaving 25,911 native birds, not counting the woodpeckers and hawks, or slightly more than two per mile. And we need to remember that many of these birds would probably have been killed by some other agency if the automobile had not reached them first. In the light of these findings it seems to me clear that the automobile is not a menace to our native birds, although it is just one more agent of destruction. But for the most part the birds that do get under the wheels belong to the more common species that are not in any danger of becoming extinct.

As to the speed of flight of birds. In only one instance did I feel sure that the observed flight was normal. That was a flock of twelve gulls that we paced as they flew along the beach of the Pacific Ocean where the road parallels the beach south of San Louis Obispo. We paced them for over half an hour, and found that they were going about 30 miles an hour. All other instances had an element of uncertainty in that one could not be sure that the flying bird was not disturbed by the proximity of the speeding car. One might say that the birds that fly parallel to the automobile along the average road fly at a speed between 25 and 35 miles an hour, with the average below 30. The swallows undoubtedly fly faster, and the Mourning Dove often does. We followed a Long-billed Curlew, that had jumped up in the road ahead of us, at 35 miles an hour for more than half a mile, but three times, going at that speed, he tried to light in the road ahead of the car. How fast could he have gone? Horned Larks, longspurs and Vesper Sparrows do the same, sometimes.

Oberlin College, Oberlin, Ohio.

FEATHERED VICTIMS OF THE AUTOMOBILE

BY CHAS. J. SPIKER.

During the year 1926, the writer covered over 3,500 miles by bicycle within the state of Iowa. Let me say at the outset that there is no better means to an ornithological end than a bicycle, provided one is willing to "work his passage." Of course, one must not be in a hurry, but the greater charm of a birding expedition by wheel is in being able to browse along by the wayside, stopping easily for a closer inspection of something that catches the eye, and pushing the steed up a hill that defies both leg and lung power. But even the last has its compensations, for I have found few hills that did not have two sides, and the coast down the decline, with the breezes sweeping by one's ears, is an exhiliration not to be found in any other way.

Perhaps 3,500 miles may look a bit unreasonable to the average reader, but if you take the trouble to place a map of Iowa before you as you read this article, I shall outline the itineraries of the various trips I made during the year.

During the spring vacation, when I was a student at Morningside College, Sioux City, I spent the first five days of April pedalling, covering about three hundred miles and visiting the following cities: Ida Grove, Jefferson, Anita, Atlantic, Harlan, Denison, returning to Sioux City.

On June 11 I commenced a tour which took me along the outside tier of counties on three sides of the state when I passed through the following cities, by which the trip may be traced on the map: Missouri Valley, Sidney, Clarinda, Mt. Ayr, Leon, Keosauqua, Keokuk, Burlington, Muscatine, Davenport, Maquoketa, Dubuque, McGregor, Waukon, Cresco, finishing at New Hampton, where I spent part of the summer. The month of August was spent in Winthrop, about seventy-five miles southeast of New Hampton, and the trip to and from that point was made by wheel.

I was to take up my teaching at Ashton on the first Monday in September, and on August 28 I set out for that place, stopping at a number of places enroute. The trip covered about two hundred miles and carried me through the following towns: Waverly, Iowa Falls, Blairsburg, thence north through Garner to Forest City, west through Estherville, Spirit Lake and Sibley, to Ashton.

The trips here described do not, of course, account for the whole of the 3500 miles. During the spring and fall months, while in school, I rode on the average of fifty miles per week; and practically all week-ends, when the weather permitted, were spent in the field.

It was not until June 11, however, when I commenced the around-the-state journey, that it occurred to me to keep a record of the birds found dead in the road. From June 11 until the first of the present year the dead birds which I found in the road, and which I think it reasonably safe to say were killed by automobiles, number twenty-eight species and 277 individuals. In keeping such a list, I noted the kind of road on which the carcasses were found, whether dirt, graveled, or paved; the county in which found, the date, and whether the birds were immature or adult. Perhaps the best way to give a summarized report is by means of the following table:

	Road			Age		
Species	Dirt	Gravel	Paved	Adult	Imm.	Total
King Rail	....	....	1	....	1	1
Carolina Rail	....	3	....	3	....	3
Killdeer	1	....	....	....	1	1
Prairie Chicken	....	1	....	1	....	1
Hungarian Partridge	....	1	....	1	....	1
Ring-necked Pheasant	....	10	2	12	....	12
Mourning Dove	1	1	....	2	....	2
Screech Owl	1	13	2	16	....	16
Red-headed Woodpecker	4	21	13	36	2	38
Flicker	2	9	3	14	....	15
Kingbird	....	2	....	2	....	2
Meadowlark	1	2	....	3	....	3
Bobolink	1	....	....	1	....	1
Red-winged Blackbird	1	....	2	3	....	3
Bronzed Grackle	1	1	....	2	....	2
Blue Jay	....	2	....	2	....	2
Crow	....	3	....	3	....	3
Prairie Horned Lark	....	1	....	1	....	1
Goldfinch	1	1	....	2	....	2
English Sparrow	48	62	44	154	....	154
Dickcissel	1	....	1	2	....	2
Migrant Shrike	2	....	....	1	1	2
Barn Swallow	....	2	....	2	....	2
American Pipit	1	....	....	1	....	1
Brown Thrasher	2	....	....	2	....	2
Catbird	1	....	....	1	....	1
Chickadee	1	....	....	1	....	1
Robin	2	1	1	3	1	4
Totals	72	136	69	271	6	277

The fact that the greatest number were found on gravelled roads does not mean that more birds are killed on gravelled roads; but most of the mileage covered was on gravel, while the least was on paved roads.

I was much surprised at the end of the year's riding to find the list embracing so many different species, but I did not find them all, for I have since learned of others still that have been found. It will be interesting to continue these findings over a period of years for the sake of comparison.

Ashton, Iowa.

TABULATING THE FEEDING OF NESTLINGS

BY A. E. SHIRLING

We had a class of forty young teachers studying ornithology in Estes Park, Colorado, June-July. In the altitude of the Park (7,500 feet) this was the height of the nesting season.

Conditions of environment were favorable, the members of the class were "peppy", and ever on the alert for something new to do. The territory around Camp Olympus was divided into five districts, the class was divided into five groups and by a system of rotation each district was canvassed ten times, or twice by each group, for birds' nests. The groups competed to see which could find the greater number of nests. Many nests were found, but the story of these findings makes a story in itself. This story is to be about the feeding of fledglings, their appetites and the industry of their parents.

Near the top of the trunk of a partly dead yellow pine there were four cavities excavated by woodpeckers. One was occupied by a family of Red-shafted Flickers, another, about four feet lower down, was the home of a family of Red-naped Sapsuckers, in another a pair of Violet-green Swallows had gone to housekeeping, and the other was unoccupied. Near by, in the stub of an old dead tree, a pair of Western House Wrens were raising their brood. All these nests were plainly visible at the same time to an observer.

It was suggested that the class watch these nests for an entire day and tabulate the feeding visits of the parents to the young in the nest. This could be done with three of the nests only, as the Violet-green Swallows had not yet hatched.

"Sure," the members of the class were ready, "let's do it tomorrow."

They worked in relays, two at a time, watching for an hour. One held the watch, the other a pad and pencil. Every time a bird visited the nest to feed the young, the time was recorded. The first relay was waiting and watching at four o'clock A. M. for the first sight of activity.

The Red-naped Sapsucker left the nest at 4:17 A. M., and the Red-shafted Flicker at 4:39. The Red-nape returned with food eight minutes later but the Flicker did not begin to feed her young until 5:15. The House Wren was a close second to the Sapsucker and gave the first morsel to her babies at 4:26.

The Red-naped Sapsucker was also the last to feed the young in the evening, visiting the nest at 7:51. The Flicker went to the nest and entered without leaving at 7:49. The House Wren left the nest and

did not return at 7:44. It was quite dusk at this time of day, (July 7).

During the interval of these first and last feedings, over fifteen hours apart, the House Wrens fed their young most frequently, visiting the nest 373 times. The Red-naped Sapsucker fed 238 times, and the Red-shafted Flicker 43 times.

Summary of Records on Feeding of Nesting Birds, Camp Olympus, Estes Park, Colorado, July 7, 1925, and August 3, 1925:

Time Hour	Number of feeding visits to to the nest.				
	Red-naped Sapsucker	Red-shafted Flicker	Western House Wren	Violet-green Swallow	Chestnut-backed Bluebird
4-5 A. M.	16	0	12	0	6
5-6	16	3	26	12	25
6-7	18	3	39	31	15
7-8	17	3	41	31	26
8-9	8	3	21	23	15
9-10	18	4	22	20	17
10-11	20	2	20	19	28
11-12	11	3	18	17	16
12-1 P. M.	13	2	16	22	24
1-2	14	1	24	14	26
2-3	16	2	11	9	17
3-4	17	4	24	12	29
4-5	10	2	15	17	21
5-6	17	3	38	14	19
6-7	15	3	36	17	33
7-7:30	12	5	10	2	6
Total	238	43	373	260	323

The difference in the feeding visits of the Flicker and of the Sapsucker was interesting. It did not take long for the watchers to see the reason for this difference. The Sapsucker carried its food in its bill. The wings and bodies of insects could be seen between its mandibles with the aid of glasses. On the other hand the Flicker came with a whole crop full of delicacies and in feeding put its bill far down the throat of the little ones and then pumped up the food, first down one throat and then another, feeding several birds at one visit. The young were far enough along in their development to stick their heads out of the entrance hole and the regurgitating process could be well observed.

At each nest the male and female birds seemed to share equally the responsibility of feeding.

The feeding was fairly evenly distributed during the day. The average interval for the House Wren was about two and one-half minutes apart, and for the Flicker twenty minutes. The Sapsucker fed the greater number of times between 10 and 11 A. M. (20 times), the Flicker between 7 and 8 P. M. (5 times), and the House Wren between 5 and 6 P. M. (38 times).

The exact age of the young birds was not known, but in each case they were well developed and left the nest a few days later.

On August third a similar tabulation was made on the feeding of a brood of Violet-green Swallows and of Chestnut-backed Bluebirds that were about two feet apart in woodpecker cavities in another pine tree. The Bluebirds visited the nest 323 times during the day, and the Violet-green Swallows 260. This, however, was hardly a fair comparison, as the swallows began to leave the nest during the day, and by night three had gone, hence part of the feeding could not be recorded.

Between the hours of 6 and 7 P. M., the Bluebirds visited the nest to feed the young thirty-three times. The swallows did not begin feeding until nearly an hour later than the Bluebirds.

TEACHERS COLLEGE,
KANSAS CITY, MISSOURI.

THREE INTERESTING BREEDING RECORDS FOR 1925 FROM THE PIEDMONT REGION OF NORTHEASTERN GEORGIA

BY THOS. D. BURLEIGH

From the standpoint of topography and soil, and even climate, Georgia has been divided into three sections which are all readily separated one from the other, and which are distinct enough that their characteristics are apparent to the most casual observer. One, the Coastal Plain, covers, roughly speaking, the southern half of the state; the second, the Piedmont Plateau, comprises the larger part of the remainder of the state, the third section, the Mountain Region, being limited to the northern tier of counties and rather small in area when taken into consideration the state as a whole. It was in the northeastern corner of this Piedmont region, about Athens, the county seat of Clarke County, that these notes were taken, the breeding records, all of them, pertaining to this past spring, 1925. To those unfamiliar with this Piedmont region it might be said briefly that it is characterized by being rather hilly, a transition as it were from the mountains to the level coastal plain, and with a red clay soil the more evident be-

cause of the cotton fields that very largely take the place of pastures, and also grain crops such as wheat and rye, farther north.

STARLING. *Sturnus vulgaris.* As early as the fall of 1917 this species was reported from Savannah, Georgia, (See Department Circular 336, U. S. Department of Agriculture, "Spread of the European Starling in North America"), but it was not until March 7, 1924, that I first recorded it at Athens. On that date five birds were seen feeding at the edge of an open field, and that there might be no question as to my identification one was collected after they had flown into the top of a nearby shortleaf pine. Whether this unduly warm reception was the cause I am not sure but these birds were not seen again, and almost a year elapsed before I recorded this species for the second time. On January 20, 1925, a flock in which there were fully sixty birds was seen feeding in the top of a large sweet gum at the edge of the Sandy Creek "bottoms." They were wary and hard to approach, and also rather restless, circling over the open fields either in one compact flock or in several small groups, their soaring flight being at this time easily noticeable. At dusk they were seen going to roost in a large stretch of cattails, wheeling above it for some time before finally dropping down out of sight, and as I watched them I felt that it was an auspicious omen in so far as their lingering here and breeding was concerned. In the next few months scattered birds were seen at irregular intervals, but they were few and far between, and the possibility of a pair actually nesting at Athens seemed doubtful. On April 23, however, one bird, a male, was seen in the dead top of a large white oak, singing, and as there were several promising looking cavities in this tree I felt that perhaps after all my optimism would be justified. I lacked the opportunity that day of investigating more fully, and when I returned three days later, on the 26th, both birds were in the top of the tree, so it was the 28th before I attempted to settle the issue. The absence of the female that day aroused the hope that she was perhaps incubating, and that proved to be the case. The holes first noticed turned out to be empty, but climbing the tree had made the bird uneasy and she finally flew from another cavity that had not been seen until she revealed its presence. It was an old Red-headed Woodpecker's nest, in a dead limb in the top of the tree sixty-five feet from the ground, and was inconspicuous enough to be easily passed by unnoticed. The cavity itself was fully a foot deep, and was well filled with a rather bulky nest of weed stems, coarse grasses, and dry loblolly pine needles. There were four fresh eggs in the nest, and as it was noon, and a reasonably warm day, the fact that the female was incu-

bating then made me feel that no more would have been laid. The tree stood well out in the open, at the upper end of the reservoir that supplies the city with water, and a hundred yards from a short stretch of pine woods, with cotton fields the predominating feature of the landscape. No other birds were seen during the spring but unquestionably young were successfully reared close about Athens for on August 1 a flock of eighteen of these birds was noted feeding about several cows at the edge of an open field; and, on September 6, a flock of fully a hundred was observed in the top of a tree at the side of a road. Since that date small flocks, usually averaging from five to fifteen birds, have been seen almost daily, and there is little doubt but that this species is now well established here as a common breeding bird. My one breeding record is the first for the state, and probably the farthest south that this species has nested so far, but this coming spring should see much of the Piedmont region well south of Athens invaded in perceptible numbers.

Nesting site of the Dickcissel (at x) in Clarke County, Georgia, 1925. Arrows point to singing trees

Nesting site of the Starling in Clarke County, Georgia, 1925. Arrow points to nest cavity.

GRASSHOPPER SPARROW. *Ammodramus savannarum australis.* The cotton fields with their scanty growth of grass offer few inducements to such a species as the Grasshopper Sparrow, and probably largely because of this lack of suitable nesting sites these birds are rather scarce here. It is true that this is practically the southern limit of their breeding range, but locally, in spots meeting their few requirements, they are fairly plentiful, and in time, with sufficient encouragement, they may become one of the common breeding birds of this part of the state. For several years now the Georgia State College of Agriculture has urged the planting of alfalfa as an aid to the growth of the live stock industry throughout the state, and to prove its value to the average farmer has devoted considerable acreage to the cultivation of this legume. Here, as well as in several adjoining fields used for

grazing cattle, these birds are, during the summer months, actually plentiful. Undoubtedly the introduction of the alfalfa is the cause of this comparative abundance of a species rarely seen elsewhere in the county, and as this plant is gradually gaining favor with the farmers throughout the state the result will be watched with interest. On June 13 I was crossing one of these fields when a bird flushed from almost under my feet and a short search revealed the nest holding two eggs incubated possibly three or four days. This number may seem rather small, and it may occur to others, as it did to me for the moment, that disaster had overtaken one or more of the eggs; but the probability is that that is the normal number for a second brood. Other years young fully fledged and out of the nest for some time have been seen the last of May so there is little question but that this was a second set, and as is generally known fewer eggs are laid by the average bird here in the south than is the case farther north. The nest was sunken flush with the ground and very well concealed in the middle of a thick clump of grass near the edge of the field, and was built of fragments of weed stems and grasses, lined with fine grasses and a little horse hair, and well arched over. The bird showed great concern when flushed, fluttering through the grass close by and chipping incessantly. This is, to the best of my knowledge, the first definite breeding record for the state.

Dickcissel. *Spiza americana.* It is doubtful if this species ever occurred in any numbers anywhere in Georgia, even before its unexpected disappearance from the Atlantic Coast states some years ago. I know of but one published record of its breeding in the state, in 1883, (See Notes on the Summer Birds of Northern Georgia, by Arthur H. Howell, *The Auk*, Vol. XXVI, No. 2, April, 1909), and that is rather indefinite and based seemingly on a pair of birds that were merely seen that one year at Rising Fawn, Georgia. Forty-two years having gone by without any further records for the occurrence of this species in the state, and as during that time it has become extremely rare anywhere east of the Alleghenies, the fact that it nested here this past year is I feel of decided interest. Until this past spring I had seen but one bird, a male on March 4, 1923, and I considered it a very scare migrant, or even but an accidental straggler, about Athens. On April 24, 1925, a male was again seen near the same spot, singing from the top of a small tree at the edge of an open field, and this time it lingered on day after day. A large sycamore stood here at the side of a stream flowing through this field, and gradually its upper branches came to be the one definite place where the bird could be

found throughout the larger part of the day, singing untiringly. Within two weeks a sudden increase occurred in the number of these birds, six being seen on May 6, all males, and well scattered over several fields of oats then ripe but as yet uncut. They were singing incessantly, either on the wing or perched in the top of a tall weed, and judging from appearances were well satisfied with conditions in general. Unfortunately within a few days this grain was cut, and almost at once these birds disappeared, but two males remaining at the spot where the one had been first noted. Possibly a hundred yards from the sycamore, and well toward the center of a field of alfalfa, was a small white oak, and it was in the top of this tree that the second bird chose to spend most of its time. The streams mentioned above flowed through a ditch ten feet in width and six feet deep, the sides being overgrown, rather thickly in spots, with such underbrush as willows and alders. It was the only situation that I considered at all promising if these birds actually nested here, for the surrounding fields were much too open to conceal the nest with any degree of success. For which reason, as the first of June approached and both birds still sang each day, and all day, from their favorite trees, this ditch was closely watched and a nest finally found that, on May 29, held four fresh eggs. It was two and a half feet from the ground and very well concealed in a thick vine growing on the side of the ditch, and was somewhat bulky but compactly built of weed stems, grasses, and fragments of dead leaves, well lined with fine rootlets and a few black horse hairs. When found, during the middle of a very hot afternoon, the female was incubating, but flushed as the vine was touched and, joined by the male who had been singing close by, showed great resentment at my intrusion. The other nest was unquestionably close by but no attempt was made to find it for this one record was sufficient to prove that this species was really breeding here, and I had no desire to discourage these birds too much. What the future holds is of course merely to be guessed at, but I am hoping very much that the Dickcissel may in time be once more a regular summer resident about Athens. Why they should have lingered as these two pairs did this year is difficult to explain satisfactorily, but having succeeded, as I feel confident they did, in rearing a brood here it is easily possible that the venture may be undertaken again in the years to come.

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ON THE ALDER FLYCATCHER (*Empidonax trailli alnorum*)

BY P. B. PEABODY

The paper by Mr. S. E. Perkins III in a recent issue of the WILSON BULLETIN (XXXVIII, March, 1926, pp. 43-44), has proved, with me, of peculiar interest. In widely sundered regions have I studied both the Traill-Alder and the Acadian Flycatchers with rare delight. If I presume to question Mr. Perkins' identification, it is because the details so carefully and accurately given present a rather decided mal-diagnosis. The main associational condition is widely remote from any elsewhere imputed to the Acadian Flycatcher. This species is, preeminently, a bird of the uplands; while the lowland associations are, in the main, persistently sought by Alder and Traill's Flycatchers. In Kansas, however, with Traill's Flycatcher (habitance proven by P. B. P., auct., H. C. Oberhoser) the reverse seems mainly true, the nestings being in osage hedges. But I have never heard before of a lowland nesting imputed to *Empidonax virescens*, of whose nest Coues (Key to N. A. Birds, 5th ed.) has said: ". . . . in *trees*, low or at no great elevation, semi-pensile in horizontal fork of a slender bough. . . ." (P. 528). Of *alnorum* the same author has written thus: ". . . . especially common in low wet places along the alders, willows . . . . in which its nest is placed, as a rule in an upright crotch of two or more twigs." (P. 529). As to the nests of these greatly differing species, Coues also says (op. cit.): Of the Acadian, ". . . . thin and open-worked shallow, flat, saucer-shaped. . . . ." (P. 528). *Per contra*, of *alnorum*, ". . . . thick-walled, deeply cupped, more or less compact, sometimes quite slovenly, like an Indigo-bird's, and in any case quite different from the frail flat saucer of *virescens*." (P. 529). As to this fundamental difference in the nest-structure of these two contrastive flycatchers, it may be apropos to state that, in Kansas, as also in California, the nests of the Traill's Flycatcher are distinctly more thick-walled, more heavily and softly felted, than the nests of the Alder Flycatchers of Wisconsin and Minnesota. This difference I find to be apparently fixed; and it is well to bear this in mind. But far more diagnostic, perhaps, than either environ or structure of nest are the "manners" and the call-notes and songs of these flycatchers. In my thirty years of migration-reporting for the Biological Survey I have learned to place far greater stress upon *audience* than upon *vision* in making positive differentiations. And it is just here that I, the more confidently, believe Mr. Perkins to have been mistaken in his identification.

The Acadian Flycatcher is, pre-eminently, a vivacious, noisy bird; the Traills' Alder Flycatchers are quite the reverse. And these two are, moreover, decidedly shy and retiring. It therefore seems to me to be highly significant that Mr. Perkins' bird ". . . . did not sing; it only fussed." This is the more emphatic because of the fact that if ever a bird either *sings* or *calls*, it is when near the nest, under human espionage. As to sizes, measurements, and colorations, Mr. Perkins has, unfortunately left much to be guessed at. He does not, for instance, tell us what the dorsal contour plumage of his birds was found to be. Coues has characterized the relative colors, for these two species, thus: the Acadian, "olive-*green*," as italicized; and the Alder, "olive-*brown*" (Ref., as above). As for lengths of the birds, and relative lengths of remigial feathers, the differences are so slight that even a keenly critical bird-bander might slip in making the due measurements from the living bird. A maximal and minimal margin of .25 inch quite justifies, does it not? the above *dictum*. Let us hope that if Mr. Perkins should succeed in trapping, another season, as he has recently done, and is likely to do, this same pair of flycatchers, he will be sure to give us the dorsal coloration. This will be diagnostic. And if he will also transcribe for us the call-note of his birds, which he surely *may*, the matter will thus have become happily settled. Nor, if his birds prove to be "olive-*green*" will that fact invalidate my contentions; but only give us a new psychological and habital complex for his interesting birds. And this will broaden our accuracies of observation and our certainties of knowledge, which is, of course, exactly what we are seeking.

I have never met the Acadian Flycatcher personally, and so am quite ignorant of its song; though all of its *nests* that I have seen conform to the Couesian citations. But I am critically familiar with both the call-notes and the songs of the Alder Flycatcher; though less so with these utterances in case of the Traill's Flycatcher as I have observed it in Kansas.

I have just found, in a Field Book imperfectly indexed, the following valuable note, which I quote as it stands:

Blue Rapids, Kansas, June 10, 1908. Traill's Flycatcher: Flies and perches like *Contopus*. Rather silent. Call, "bit"; song, "viz-you": somewhat like *alnorum;* a few colloquial notes like *borealis*. A pair located for nesting in (an osage) hedge. Perhaps, three pairs in the same eighty-rod hedge. Very silent. One song is "R-r-r-ish-beel," with the (initial) R intensely rolled. But the song is feeble. It resembles the "Shay-deel" of *alnorum*, though more deliberate; and is

like the "Vee-bleer" of *borealis*, though of course, far less resonant. No signs of nesting up to July seventh. Two males taken that day were at sex-maximum—were not fat. No signs of nesting, or of incubation, anywhere. Birds very local. No signs of nesting observed, later.

How happily true it is that "*Litera scripta manet.*"

A brief survey of a fairly ecstatic experience of mine with the Alder Flycatcher, last June (1926), in the Devil's Lake Region of North Dakota, will clinch my contentions, most likely; and cannot but prove edifying to the readers of the WILSON BULLETIN.

Of course, I have long been familiar with the inspiriting morning-song of the Alder Flycatcher, "Zhay-deel," as heard in the northland; as, also, with the soft, subdued, measured "Pip" which this species incessantly iterates, amid its brushland seclusions. This call, though so soft and so liable to be unheard, was so persistent as heard, the past summer, at a Wisconsin brushland nest in a black-oak sprout, at seven feet—a nest that was marvellously sprawly without, yet wondrously neat within—that I always knew, while reconnoitering in the interests of my Cedar Waxwing colony, just when I might be approaching this nest with its three younglings; from whatsoever direction and at howsoever inappreciable a distance. This note is just "Pip," never "Tip"; and there is positively no other species that has a call quite like it. My acquaintance with the Alder Flycatchers of Benson County, North Dakota, in the opening days of June, 1926, had its staging in a little willow "motte," a sort of "island," in the "Big Coulee," an ancient river-bed of the long, meandering Cheyenne Basin. Here, while resting from my strenuous searches of the boggy depths for nests of the Yellow Rail, I found the Alder Flycatcher enacting what was, for me, an entirely new *role*: While this species is the most solitary of all the flycatchers of the mid-north, without exception, I was surprised to find assembled, in that narrow motte, perhaps three pairs, or more. (There was no spot just like it, anywhere in all that region). It was the nuptial time, of course; and the flycatchers were quite definitely localized. By crouching low and keeping utterly still, I had the joy of an association with this seclusive bird never paralleled, before, in fifty years. I even watched the males chase one another, discreetly, guardedly, as if in constant fear of self-betrayal. And I found myself watching their sundry movements as I had never been able to do before. But my most delightful "find" was in the vocal realm. I have rather doubted if any one else has ever heard, before, what I heard that day. It was a decidedly husky, rather feeble note, somewhat akin to the ridiculous nuptial note, bronchitic and gaspy, of the Nelson's Spar-

row, as heard in the adjacent meadows. The call may be very accurately expressed in a human vocable; (which, by the way, is not often possible with paraphrases of bird-calls and bird-songs). Here, then, you have it: "Wish-beer." This odd call I heard, over and over again; sometimes, at ten-foot distances. I never heard a more characteristic bird sound, nor one which, for all its ridiculous feebleness, yet rests so strongly and so powerfully upon my memory. Shall I ever hear it again, I wonder? Truly, I *may* hope to enjoy that outsounding "Zhay-deel," again, next summer, at the dear old Wisconsin home. But, "Wish-beer"! Anyhow, here's hoping, and *hoping*, that Mr. Perkins and his confreres may hear it, along their tiny cat-tail-willow Indiana swale, the twentieth of next May!

TOPEKA, KANSAS.

SUMMER BIRDS IN THE VICINIITY OF PLUM LAKE, VILAS COUNTY, WISCONSIN*

BY ALVIN R. CAHN, PH. D.

When, on June 26, 1925, Governor Blaine of Wisconsin, signed Assembly Bill No. 351, there came into existence the largest public park in the northern part of Wisconsin, and one of the finest preserves in the middle west. The Northern Forest Park, as this new preserve and game refuge is called, comprises an area of some 92,000 acres of forests, swamps and lakes, approximately 76,000 acres of which are state owned. Upon these state owned lands henceforth there will be no hunting and no trapping, and the wild life which still clings desperately and almost miraculously to these northern Wisconsin forests will have its chance to recuperate from the slaughter to which it has been subjected in the past. In this area the generations that are to come will find, we hope, such wild life as we ourselves have enjoyed—perhaps even more. If those who privately own the land within the boundaries of the new park will co-operate with the state in carrying out the spirit as well as the letter of the law by posting their lands against hunters and trappers, we may rest assured that here the generations of tomorrow will find an abundance of wild life.

The new Northern Forest preserve lies in the very heart of the "land-o'-lakes" region of Vilas County, Wisconsin. It includes fine forest areas of large second growth timber, with scattered areas of virgin white pine not unknown. Luxurious undergrowth, untouched by fire for many years, covers the country and offers shelter and breeding

*Contribution from the Zoological Laboratory of the University of Illinois, No. 293.

grounds to all sorts of native animals. Sphagnum bogs, with their pitcher plants and tamarack borders, lie in the valleys between gently rolling wooded hills. Something over forty lakes of various sizes, belonging mostly to the Manitowish River system, teem with fish and afford an almost endless variety of aquatic and semi-aquatic habitats, where thrives a numerous and interesting biota. Large game still roams the woods; the Virginia deer is still common and there are black bear, timber wolves, coyotes and foxes. The lakes have their muskallunge, bass, pike and pickerel and dozens of species of shore minnows and darters. A single railroad pierces the corner of the preserve and Sayner, on the Chicago, Milwaukee and St. Paul Railroad, is the only town within its limits. It is a land of beauty and endless variety, and it is not surprising that its avifauna should be abundant.

The writer has spent parts of many summers in this particular region of northern Wisconsin simply because of its beauty and the abundance of its wild life. The dates of his visits have hardly ever overlapped each other so that the list of birds of the park herewith offered is a composite of observations that cover the region from the middle of June to early September. Despite the fact that the birds will be protected in the future, changes are bound to occur as the biota tends to stabilize itself and find the normal balance which existing conditions will support. Some species will undoubtedly go; others will come. The list is offered as a record of the species known to the writer to inhabit the park now. What changes will come, future notes by others will tell. The list is presented as the first of a series of contributions dealing with the fauna of the park; if it proves of assistance to others in enjoying the wild life of the region as the writer has enjoyed it, its purpose will be fulfilled.

[The following list contains 107 named forms.—Ed.]

Horned Grebe. *Colymbus auritus.* A breeding species, but not very common. Seen on Nixon, Little Gibson and Razorback Lakes.

Pied-billed Grebe. *Podilymbus podiceps.* Somewhat more common than the preceding species, frequenting the more reedy or ricey lakes, and breeding generally throughout the region.

Loon. *Gavia immer.* Abundant. Found breeding on all of the larger lakes, which, however, seldom harbor more than two pairs. Young are out of the nest by the middle of June, often hatching during the first part of the month. Old muskrat houses are used year after year as breeding loci.

HERRING GULL. *Larus argentatus.* A visitor only, appearing most frequently after or during heavy winds, when the birds are swept from their normal haunts about the great lakes.

COMMON TERN. *Sterna hirundo.* Seen only in the vicinity of Big Muskallunge and Plum Lakes, but in evidence there constantly during the early summer of 1925. There is no evidence of breeding within the region.

BLACK TERN. *Clidonias nigra surinamensis.* A common breeding species, particularly about lakes with boggy shores or wild rice areas: Nixon Lake, Rice Lake, and suitable areas about the larger bodies of water.

RED-BREASTED MERGANSER. *Mergus serrator.* A common breeding species. A pair with eleven young, evidently very recently hatched, was seen constantly on Big Muskallunge Lake after June 17. It is interesting to note that this same brood was seen on two successive days at points over three miles apart in a straight line, with probably over five miles of shoreline intervening. As the birds very rarely appear away from the shallow water when accompanied by newly hatched young, it is still more interesting to note that on the third day they were back where they were first seen. This in spite of the fact that the young were under two weeks of age.

MALLARD. *Anas platyrhynchos.* A fairly common breeding species about the less frequented regions. A pair with young were seen on Nixon Lake, another on Rice Lake, and a third in Star Lake bay of Plum Lake. Very abundant during migrations.

BLUE-WINGED TEAL. *Querquedula discors.* Fairly common as a breeding species, particularly around wild rice lakes. Several pairs bred near Nixon Lake in 1925. Less common now than formerly.

WOOD DUCK. *Aix sponsa.* Still an occasional breeder in the less disturbed regions of big timber. Several were seen on Plum and Big Muskallunge Lakes in both 1924 and 1925.

REDHEAD. *Marila americana.* An uncommon summer resident occasionally found about the larger bodies of water. Said to breed in the region, but I have no data to offer.

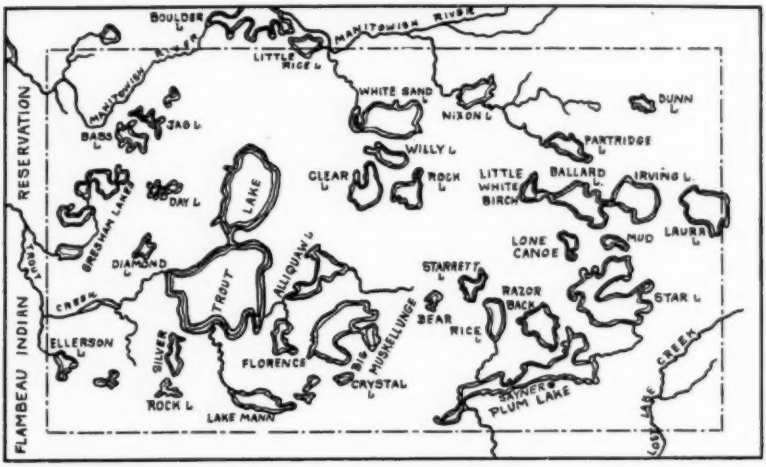
AMERICAN BITTERN. *Botaurus lentiginosus.* A common species about the more reedy lakes, breeding where suitable swampy regions are found: Nixon Lake, Rice Lake.

GREAT BLUE HERON. *Ardea herodias herodias.* An abundant breeding species, rapidly on the decline since the Wisconsin laws have placed it on the black list because of its fish-eating habits. One native

of the north woods tells me with pride of shooting over three hundred Great Blue Herons out of one rookery in one day, as the birds were going and coming with food for their young. Surely the state should reward such a hero!

Virginia Rail. *Rallus virginianus.* Not uncommon about the smaller swamp-bordered lakes, but more often heard than seen. Breeds about Nixon, Rice, Johnson Lakes, and other small bodies of water.

Sora. *Porzana carolina.* Seen only once, along Johnson Creek in the northern part of Vilas County, and heard several times about Nixon and Rice Lakes. Probably breeds.



Map showing the lakes within the limits of the new Northern Forest Park, Vilas County, Wisconsin.

Coot. *Fulica americana.* An uncommon breeding species. Seen only on Nixon Lake. Abundant during migrations.

Wilson Snipe. *Gallinago delicata.* An uncommon summer resident, said to be a breeding species. Only seven "Jacks" were seen by the writer in two summers. Decidedly on the decrease.

Least Sandpiper. *Pisobia minutilla.* An uncommon summer resident, seen by the writer only once: July 14, 1925, on Plum Lake.

Spotted Sandpiper. *Actitis macularia.* A fairly common summer resident, seen almost daily, but never in any numbers. It frequents all of the lakes where sandy shores predominate.

Solitary Sandpiper. *Tringa solitaria solitaria.* Five individuals were seen during my stay in 1925, three on Big Muskallunge Lake, and two on Plum Lake.

KILLDEER. *Oxyechus vociferus.* Rather uncommon as a summer resident, as there is relatively little breeding ground for the species. Several breed on the golf course at Plum Lake each year, and the young are often seen running about on the course.

CANADA SPRUCE PARTRIDGE. *Canachites canadensis canace.* Almost exterminated. A small covey still holds out near Little Johnson Lake, and this is the only flock I saw. The opening of the shooting season on the species will practically wipe the birds out. It is to be hoped that those few birds within the new game preserve will be spared.

RUFFED GROUSE. *Bonasa umbellus umbellus.* I was surprised to see so very few partridges in evidence; they are positively scarce, and are doomed to be scarcer still with the opening of the shooting season. A breeding species where found.

PRAIRIE CHICKEN. *Tympanuchus americanus americanus.* A resident breeding species. Almost unknown within Vilas County ten years ago, the species has increased wonderfully—so wonderfully that the law opens on the species this fall (1925). That spells the doom of the species in the county in general, but some may hold out within the new sanctuary. Let us hope so, at least.

TURKEY VULTURE. *Cathartes aura septentrionalis.* An uncommon summer resident, seldom seen unless there is a carcass about. Then the birds appear as by magic. I know nothing of their breeding within the region.

MARSH HAWK. *Circus hudsonius.* A common breeding species. Seen most frequently flying low over the swamps or fields in search of food.

SHARP-SHINNED HAWK. *Accipiter velox.* Unfortunately, rather common. The chief victims of this bird seem to be Myrtle Warblers, Vesper, Song and White-throated Sparrows.

COOPER'S HAWK. *Accipiter cooperi.* Not an uncommon breeding species, which, like the above species, does much damage to the smaller song birds. The only White-crowned Sparrow I saw in the region was in the talons of a Coopers' Hawk!

RED-TAILED HAWK. *Buteo borealis borealis.* Usually seen or heard high overhead, where the red tail, catching the sunlight, differentiates the species conspicuously. Breeds in the more isolated spots: Big Johnson, Little Gibson Lakes.

BALD EAGLE. *Haliaeetus leucocephalus leucocephalus.* A beautiful pair has bred for many years on Razorback Lake. Not infre-

quently seen about Big Muskallunge Lake, where I suspect another pair is breeding.

Sparrow Hawk. *Cerchneis sparverius sparverius.* The most abundant of the smaller hawks, met with almost exclusively in burned over areas or areas of young second growth. Feeds almost exclusively on grasshoppers, meadow and deer mice.

Osprey. *Pandion haliaetus carolinensis.* An abundant breeding species. The nests, in the very tops of dead pine trunks, are features of many landscapes. Seen constantly over the large lakes, where they feed upon almost any species of fish available. A bird was seen over Big Muskallunge Lake carrying a sucker that must have weighed all of two pounds to its nearby nest.

Barred Owl. *Strix varia varia.* The commonest of the large owls, but not often seen unless one frequents the big timber. Breeds near Nixon Lake, where nearly fully developed young have been seen out of the nest early in July.

Screech Owl. *Otus asio asio.* Quite frequently heard during the early evenings about the dwellings, but very difficult to discover during the daytime. It is a common breeding species.

Great Horned Owl. *Bubo virginianus virginianus.* Heard more frequently than seen. It inhabits the less settled regions, and breeds about Little and Big Johnson, Little Gibson, and Rice Lakes.

Black-billed Cuckoo. *Coccyzus erythrophthalmus.* Haunter of the deeper thickets, this bird is seldom seen, but is not at all uncommon if one seeks it. It is not unlikely that the Yellow-billed Cuckoo also occurs, and both species probably breed within the region, but I happen to have no data on the subject.

Kingfisher. *Ceryle alcyon.* A common species wherever there is country suitable for its burrowing nesting habits.

Hairy Woodpecker. *Dryobates villosus villosus.* Seen commonly about the residences, and breeding in the hardwood areas.

Downy Woodpecker. *Dryobates pubescens medianus.* Also common, but less often seen than the Hairy. Found generally in the same associations.

Yellow-bellied Sapsucker. *Sphyrapicus varius varius.* A common breeder throughout the region. The belt-like borings of the species are very much in evidence on both hardwoods and evergreens, and there is evidence of a not inconsiderable damage wrought by the birds.

NORTHERN PILEATED WOODPECKER. *Phloeotomus pileatus abieticola.* Rare. Found only in the heaviest timber, far away from the ordinary track of tourists. A pair was seen near Little Johnson Lake. Called locally "cock of the woods."

RED-HEADED WOODPECKER. *Melanerpes erythrocephalus.* A common breeding species, seen frequently along the road-sides and about the dwellings; less frequently in the heavy timber.

NORTHERN FLICKER. *Colaptes auratus luteus.* Like the preceding, a bird of the road-side timber. Common breeder.

WHIP-POOR-WILL. *Antrostomus vociferus vociferus.* Common wherever found, but extremely local in distribution. Around the forest ranger's look-out tower (Camp Two) the birds are abundant.

NIGHTHAWK. *Chordeiles virginianus virginianus.* Common throughout the region, breeding abundantly. The birds are much in evidence at dusk, when they feed on an abundance of gnats, midges, and mosquitoes.

CHIMNEY SWIFT. *Chaetura pelagica.* Common about the farms and dwellings, where they nest in their accustomed chimneys.

RUBY-THROATED HUMMINGBIRD. *Archilochus colubris.* One female was seen at Forest Home on Plum Lake on June 20; a male and a female on Big Muskallunge Lake August 12. An old nest was found along Rice Creek just above Plum Lake.

KINGBIRD. *Tyrannus tyrannus.* An abundant and very characteristic bird of the roadsides and more open woods, breeding often near streams.

CRESTED FLYCATCHER. *Myiarchus crinitus.* The characteristic voice of this species was heard daily about Forest Home on Plum Lake, but the birds were only seen twice. A breeding species.

PHOEBE. *Sayornis phoebe.* Commonly found about the dwellings. where old nests are not infrequently seen. Not often found in the deeper woods.

PEWEE. *Myiochanes virens.* A bird of the deeper woods, less often seen about the dwellings. A common breeding species.

LEAST FLYCATCHER. *Empidonax minimus.* One of the most characteristic of the smaller species found in the north woods. There was hardly a region visited where the familiar call of the species did not greet me.

Prairie Horned Lark. *Octocoris alpestris praticola.* Seen only on the golf course on Plum Lake, where probably a dozen individuals were found to be very tame.

Blue Jay. *Cyanocitta cristata cristata.* Common throughout the region, but strangely quiet for so garrulous a bird.

Canada Jay. *Perisoreus canadensis canadensis.* Locally common only. Seen only about the Camp Two lookout station, where the birds acted up to their traditional familiarity to perfection.

Raven. *Corvus corax principalis.* A very few ravens are still to be found about Little Johnson Lake; three were seen on August 10 in the heavy timber.

Crow. *Corvus brachyrhynchos brachyrhynchos.* A breeding species, but not nearly as common as I have found them in similar localities in northern Minnesota and Michigan.

Cowbird. *Molothrus ater ater.* A frequenter of the pastures and open fields, abundant where cattle are found.

Red-winged Blackbird. *Agelaius phoeniceus arctolegus.* Locally common, but of very limited distribution. The largest number were seen at the east end of Big Muskallunge Lake, feeding along the rocky shore.

Meadowlark. *Sturnella magna magna.* A bird of the open fields and pastures, never met with away from civilization. Common on the farms and on the Plum Lake golf course.

Bronzed Grackle. *Quiscalus quiscula aeneus.* A common breeding species in the evergreens. The birds begin to flock as soon as the young can fly, after which they visit the cultivated fields—to the annoyance of the farmer.

Purple Finch. *Carpodacus purpureus purpureus.* Not common, but several small flocks were noted in July and August. Abundant as a migrant, particularly so in the spring.

Goldfinch. *Astragalinus tristis tristis.* A common species, found most frequently along the fences in cultivated regions, where they breed.

Pine Siskin. *Spinus pinus.* One small flock was seen in a tamarack swamp near Little Gibson Lake on July 11, 1925, the only record I have.

English Sparrow. *Passer domesticus.* Abundant about the villages and to a much less extent about the isolated dwellings. Entirely absent elsewhere.

VESPER SPARROW. *Pooecetes gramineus gramineus.* A characteristic bird of the roadsides and open fields. Very common, breeding throughout the region.

WHITE-CROWNED SPARROW. *Zonotrichia leucophrys leucophrys.* Uncommon. The only specimen seen was in the talons of a Cooper's Hawk! Perhaps more abundant than present data indicate.

WHITE-THROATED SPARROW. *Zonotrichia albicollis.* Common, but much less so than I have found the species in similar regions in northern Minnesota. The song is frequently heard, and the birds breed throughout the area.

CHIPPING SPARROW. *Spizella passerina passerina.* These little chaps, abundant as they are, seem strangely out of place in the north woods. Yet there they are, in full song, as prosperous as on the well kept city lawns. They breed throughout the area.

SLATE-COLORED JUNCO. *Junco hyemalis hyemalis.* A common summer resident, seen on several occasions carrying food. They frequent the roadsides, and were never seen in the woods.

SONG SPARROW. *Melospiza melodia melodia.* Very common all over the region, seen most frequently about the smaller lakes. Three nests were found in July, 1925, all with nearly fledged young.

SWAMP SPARROW. *Melospiza georgiana.* Seen frequently about Little Gibson and Nixon Lakes. Probably a breeding species.

CHEWINK. *Pipilo erythropthalmus erythropthalmus.* Common throughout the area, breeding usually among the hardwoods near the smaller lakes. Plum, Nixon, Rice, Little Johnson Lakes.

ROSE-BREASTED GROSBEAK. *Hedymeles ludovicianus.* Not common anywhere within the reservation. Seen only twice, but heard several times.

INDIGO BUNTING. *Passerina cyanea.* Like the Vesper Sparrow, a bird of the roadside, most frequently seen sitting on telephone or light wires. Probably breeds, but no data are at hand.

SCARLET TANAGER. *Piranga erythromelas.* Rather abundant, and always a joy to see. I have found them all over the region, both near the dwellings and in the deep woods. A nest with newly hatched young was found on July 8, 1925.

PURPLE MARTIN. *Progne subis subis.* Abundant wherever inducement in the form of a nesting site if offered. Elsewhere entirely absent.

Barn Swallow. *Hirundo erythrogastra.* Common around the villages; elsewhere rare. A pair nested in 1925 on the boathouse door of Forest Home, Plum Lake.

Tree Swallow. *Iridoprocne bicolor.* Common around the smaller swampy lakes, where the birds nest in hollows in dead tree trunks; absent from the vicinity of villages.

Bank Swallow. *Riparia riparia.* Common only where suitable sand banks offer nesting sites. Since these are rare and local, the species is local in distribution.

Rough-winged Swallow. *Stelgidopteryx serripennis.* Less common than the preceding species, and likewise confined to few and scattered nesting areas.

Cedar Waxwing. *Bombycilla cedrorum.* A common breeding species. Almost as soon as the young are out of the nest the birds begin to gather in small flocks.

Migrant Shrike. *Lanius ludovicianus migrans.* Not common. A Chipping Sparrow and a Myrtle Warbler pinned on a thornapple tree at Plum Lake bespoke the activities of this bird.

Red-eyed Vireo. *Vireosylva olivacea.* One of the most characteristic singers of the woods. Seldom seen, though the birds are really common. Some half dozen nests have been found.

Warbling Vireo. *Vireosylva gilva gilva.* Decidedly less numerous than the preceding, but more frequently seen as they prefer the vicinity of dwellings to the deeper woods.

Black and White Warbler. *Mniotilta varia.* Abundant as a migrant, but one can expect to find the species at almost any time during the summer. Seen both in July and August about Plum Lake. Possibly a breeding species, but no data are at hand.

Tennessee Warbler. *Vermivora peregrina.* Several were seen during July, 1925, about Forest Home on Plum Lake, as well as in camp on Little Gibson Lake.

Yellow Warbler. *Dendroica aestiva aestiva.* Not common, but occasionally seen about the more cultivated dwellings, where the birds are likely to breed in rose bushes or currant patches.

Black-throated Blue Warbler. *Dendroica caerulescens caerulescens.* Several seen and heard about Plum and Little Gibson Lakes, July, 1925.

MYRTLE WARBLER. *Dendroica coronata.* Seen constantly about Forest Home on Plum Lake, several times carrying insect food, but no nest or young could be discovered.

CHESTNUT-SIDED WARBLER. *Dendroica pensylvanica.* Forest Home on Plum Lake on June 19; again on August 11. No breeding data.

BLACK-POLL WARBLER. *Dendroica striata.* Seen during both July and August, most frequently on evergreen and tamaracks than on hardwoods.

BLACK-THROATED GREEN WARBLER. *Dendroica virens.* Two males and one female near Little Johnson Lake are the only records on hand. July 11, 1925.

PINE WARBLER. *Dendroica vigorsi.* A single individual at Plum Lake, Forest Home, is the only summer record.

OVENBIRD. *Seiurus aurocapillus.* Abundant throughout the region, much more frequently heard than seen. The "teacher" call of the Ovenbird was heard almost daily. Breeder.

MARYLAND YELLOW-THROAT. *Geothlypis trichas trichas.* Heard commonly and frequently seen about Big Muskallunge, Plum and Nixon Lakes, where they breed in suitable localities.

REDSTART. *Setophaga ruticilla.* Quite common in the more open woods about Plum Lake. A nest of young was found near Little Johnson Lake on July 11, 1925.

CATBIRD. *Dumetella carolinensis.* A common breeding species most in evidence about the lawns of towns and villages. Less often seen in the woods, though a pair nested at Forest Home on Plum Lake in July, 1924.

BROWN THRASHER. *Toxostoma rufum.* Common about the towns and even about the houses in the woods, where the singing of the birds is a rare delight. A breeding species.

HOUSE WREN. *Troglodytes aedon aedon.* Breeds almost any place an attractive wren house is put up; a common summer resident throughout the more settled areas.

WINTER WREN. *Nannus hiemalis hiemalis.* Usually seen scurrying like a little mouse in and out of brush piles and tangled thickets. Shows a decided preference for cedar and tamarack swamps. Not a songster.

LONG-BILLED MARSH WREN. *Telmatodytes palustris palustris.* Not an uncommon breeding species where cat-tail swamps are to be found. Absent elsewhere.

Brown Creeper. *Certhia familiaris americana.* Seen often about Plum Lake, and probably common throughout the region, more especially among the hardwoods.

White-breasted Nuthatch. *Sitta carolinensis carolinensis.* A common breeding species, using the holes made by the Downy Woodpecker for the site. Shows little preference in the matter of tree species.

Red-breasted Nuthatch. *Sitta canadensis.* Somewhat more common, I believe, than the preceding; most common among the evergreens. No breeding data at hand.

Chickadee. *Penthestes atricapillus atricapillus.* A common breeding species, particularly about Plum and Razorback Lakes. A pair with seven babies were much in evidence during early July, 1925.

Golden-crowned Kinglet. *Regulus satrapa satrapa.* Several pairs were seen about Little Johnson and Little Gibson Lakes during early July. Probably nesting in the area, but it is not a common species.

Wilson's Thrush. *Hylocichla fuscescens.* Not common, but several were seen, and others heard, during July and August. One of the finest of the songsters.

Olive-backed Thrush. *Hylocichla ustulata swainsoni.* Somewhat more common than the preceding—at least more frequently seen because it tends to avoid the denser woods. Breeds in hardwoods or bushes, often near dwellings.

Hermit Thrush. *Hylocichla guttata pallasi.* Haunter of the hardwoods only, the Hermit Thrush is, next to the Robin, the commonest of the thrushes. Two nests with young were found early in July, 1925, at Plum Lake.

Robin. *Planesticus migratorius migratorius.* The sight of the Robin, hunting insects along the water's edge, far from civilization (or at least cultivation), makes one feel at home at once. Robins are surprisingly abundant even in the more remote portions of the region. Breeds throughout the area.

Bluebird. *Sialia sialis sialis.* Birds of the more open country, the Bluebird is not at all common in the region. Seen, however, along the roadsides, and about the more open country of the towns. Several pairs were seen about the Plum Lake golf course, breeding in woodpecker holes.

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THE WILSON BULLETIN

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Prof. Gordon Wilson, Bowling Green, Kentucky.
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Mr. Walter W. Bennett, Sioux City, Iowa.

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EDITORIAL

At the recent meeting in Chicago two important changes were made in our official personnel. Mr. Ganier served as Secretary for four years, and later as President for three years. His earnest and faithful attention to official duties during these years has been recognized and appreciated. His successor, Dr. Jones, has formerly held this office, but in a different period of the organization's history. It was thought that Dr. Jones' knowledge and acquaintance would be of particular value to the Club at this time; and it was also thought that, because of his long continued services, Dr. Jones merited such honor as the office might convey.

Mr. Blincoe has served capably as Treasurer for three years. He points with satisfaction to the fact that he turns the office over to his successor without a deficit, notwithstanding the fact that he took the office with a deficit of $600. We regret that his modesty prevents us from showing his portrait to our readers. The new Treasurer, Professor Stack, is actively and enthusiastically interested in our work. We have insisted upon showing his portrait, believing that it will result in better acquaintance and better collections. The prompt and certain collection of our funds is a *sine qua non*, and we wish our new Treasurer unlimited success.

We are running the cover for this issue without color, and would be glad to hear whether it is preferred this way, or with the color. We doubt if a change of color with each issue is desirable; but what shade to adopt for constant use is a problem which we would refer to the artists among our membership.

Enlarged copies of the group photograph of the Chicago meeting may be obtained through Mr. Wm. I. Lyon, Waukegan, Illinois, at $1.25 each.

GENERAL NOTES

Conducted by M. H. Swenk

Two Bird Records from Grafton, North Dakota.— On September 24, 1926, I collected a female Parasitic Jaeger (*Stercorarius parasiticus*) at Grafton, North Dakota; the only record that I can find for this locality. On October 10, 1926, in company with Mr. E. T. Judd, of Cando, North Dakota, I saw a Lewis's Woodpecker (*Asyndesmus lewisi*), which I was not able to secure, just south of here, which is the second record for this locality.—H. V. Williams, *Grafton, N. Dak.*

A Late Record of the Mockingbird at Chicago.—The group of those attending the annual meeting of the W. O. C. in Chicago, which strolled about the ideal Bird Sanctuary north of Lincoln Park, on Sunday, November 28, last, saw many interesting sights but none more thrilling than having a Mockingbird (*Mimus polyglottos polyglottos*) perch for several minutes near it and then make a circle flight about the group so as to display every field mark. Mr. Samuel A. Harper, of Chicago, and Mr. Wm. I. Lyon were among those fortunate enough to be present.—Samuel Elliott Perkins, III, *Indianapolis, Ind.*

A Visitation of the Snow Bunting in Iowa.— The past winter (1926-27) has produced an unusual number of Snow Buntings (*Plectrophenax nivalis nivalis*) and longspurs, the latter presumably the Lapland Longspur. The longspurs appear every winter, but the occurrence of the Snow Buntings is not common. This winter, however, they were distributed quite generally over northern Iowa, as I have found them at Ashton, in northwest Iowa, and at New Hampton and Beulah, in northeast Iowa. The first Snow Bunting appeared late in October, and they have been seen in flocks of from 300 to 1,000 birds.—Chas. J. Spiker, *Ashton, Iowa.*

A Lesser Scaup Duck Resembling the Ring-necked Duck.—In the September, 1926, number of the Wilson Bulletin, at the bottom of page 145, there was described under the head of Ring-necked Duck a supposed hybrid between that species and the Lesser Scaup. Subsequently, this specimen was sent to the Museum of Comparative Zoology at Cambridge, Mass., where it was examined by Dr. J. C. Phillips who says: "The bird is a straight Lesser Scaup and the ringed appearance of the neck is due to contrast between fresh and old plumage at that point. The white patch on the chin is found in varying amounts in a good many examples of Lesser Scaups, though the majority lack it; its presence, however, does not indicate a touch of *collaris* blood."—Wm. G. Fargo, *Jackson, Mich.*

Bald Eagles Along the Mississippi River.—During the past winter (1925-26) a number of Bald Eagles (*Haliaeetus leucocephalus leucocephalus*) wintered along the Mississippi River between Keokuk, Iowa, and Warsaw, Illinois. Two or more of them were to be seen along the river front on frequent occasions. Unfortunately, they attracted the attention of hunters who killed about eight of them during the winter. It is probable that they were attracted to this location for wintering because of the open water below the dam, which made it possible to secure fish without great difficulty. Bald Eagles have been seen here during the winter months nearly every year for some time past, but a larger number were present during the past year than for many years previously.—Frank C. Pellett, *Hamilton, Ill.*

Ground Nesting Habits of the Mourning Dove and Towhee.—The Mourning Doves have greatly increased in numbers since Ohio put them on the song-bird list. Two unusually late nesting dates for Delaware County are September 4, 1921, a nest with nestlings only two or three days old, and September 16, 1921, a nest with young about a week old. Three unusual nests were found in Delaware County on May 24, 1923. The nests were on the ground, in large meadows, and had full sets of eggs. This is our first record for ground nests in central Ohio.

The great majority of early nests of the Towhee, we find on or near the ground. But for several years all the second nests, or July brood, we have found were in small shrubs, or bramble and wild-rose clumps, and from two to five feet from the ground. Is this usual with second nests of the Towhee? Or is it because the nesting association is better in the shrubs when they have a full complement of leaves, and afford better shelter and protection?—CHARLES R. WALLACE, *Delaware, Ohio.*

Some Ohio Bird Notes.—On November 8, 1925, in company with other observers, I found a late flock of fifty Chimney Swifts (*Chaetura pelagica*) congregating in a steeple a few miles south of Wooster, Ohio. I believe that this is the latest fall date for this species in northern Ohio.

The Prothonotary Warbler (*Protonotaria citrea*), considered to be a rare or uncommon visitor in northern Ohio, bred in numbers this year in swamps south of Wooster. On June 17, I banded six young which are probably the first birds of this species to be banded.

Specimens, the measurements of which agree with those of the Carolina Chickadee (*Penthestes carolinensis carolinensis*), were collected during the autumn of 1926. This locality is on the borderline between the breeding ranges of the two species, and although the Black-capped Chickadee (*P. a. atricapillus*) winters here, the Carolina Chickadee is probably the breeding form.—JAMES STEVENSON, *Wooster, Ohio.*

Notes on the Fall Migration of 1926.—The more interesting matters of my 1926 fall record so far are that, whereas I did not see a single Nighthawk during the entire season, I began seeing them on the evenings of August 28 and 30, and on twelve evenings since, up to September 21, they being seen practically every night that I stood on guard. Out at the Missouri River the other day I saw about fifty White Pelicans. I continue to see now and then a Duck Hawk. I also saw two Turkey Vultures a few days ago, and that is, I think, as many as I saw at Emmetsburg in ten years. A thing that sets me to studying is the fact that Chimney Swifts, that feed fairly low all summer long will be, these evenings, feeding a thousand feet up in the air, where they all seem to be working. What do they get up there? or are they feeding? or merely cooling off? The warblers have been very scarce. I have recorded in migration only one female Mourning Warbler and one Wilson's Warbler. I have seen Ruby-crowned Kinglets twice.—LEROY TITUS WEEKS, *Tabor, Iowa.*

The Purple Gallinule Carries Its Young.—On June 16, 1926, while watching one of the numerous vegetation-covered ponds near Plant City, Florida, a Purple Gallinule (*Ionornis martinicus*) flew up, paused for a few moments atop some plants, and then proceeded to the edge of a patch of open water where she disappeared. The thing which attracted especial attention was a young bird

which she held by the neck, with its body and yellow legs hanging down—one of her own chicks apparently. It seemed hardly possible that a living bird could be carried in such fashion, yet she appeared to be careful in her movements and created the impression that she was moving a live bird. Her actions earlier had led to the question as to whether there were young birds near where she disappeared.

Later in the day, Oscar Baynard told us that twice while employed at Orange Lake he had seen a Purple Gallinule move her young in this way from one place to another. On one occasion he found two large water moccasins on the tiny island from which the chicks were moved. The second time he could find no reason but believed that in that case also they were moved for greater safety.—Beryl T. Mounts, *Macon, Ga.*

On the Nidification of the Acadian Flycatcher Again.—I have been greatly pleased with the friendly criticism of my identification of the Acadian Flycatcher, as described on pages 43 and 44 of the March, 1926, number of the Wilson Bulletin. As I read further about the Acadian and Alder Flycatchers, admittedly difficult to differentiate, I am not certain which one I had. I now have ten nests of whichever species it is, that have been found, some in upright crotches, some in slanting branches, some from deep woods but most from edges of thickets, some thin enough to see through a wall and some thick; one with trianguar rim, one perfectly round and the others elliptical; one with paper and one with cotton in large quantities in the makeup; one with a second story over a Cowbird egg. I am not ready yet to concede I have had the Alder Flycatcher though I am wavering. After another season with the species, I will give a detailed report of my findings and venture another opinion.—Samuel Elliott Perkins, III, *Indianapolis, Ind.*

An Unusual Flight of Snow Geese in the Lake Winnebago Area.—For the past few years both varieties of the Snow Goose (*Chen hyperboreus hyperboreus* and *C. h. nivalis*) have been uncommon during migrations on Lake Winnebago. In the spring and fall, flocks seldom numbering more than one hundred birds have been observed to remain for a brief period, but those vast hordes spoken of by early writers seemed to have disappeared, until recently.

On November 1, 1926, the writer, while hunting ducks on Lake Winnebago during a severe northeast snowstorm, was attracted to a great swarm of birds coming in from the north. They at first appeared to be ducks, but closer approach enabled their identification as Snow Geese. Driven by the gale, they maintained no particular formation, and they appeared as a part of the drifting snowstorm itself. The darker immature birds gave the flock a peculiar speckled appearance, and great bunches of the birds fairly filled the sky from the limit of vision down almost to the waters' edge.

There seemed to be countless numbers of them, and only one flock was observed to alight on the lake—all of the other flocks maintained a straight course to the south, and in half an hour all were gone.

It was impossible to determine whether they were the Greater or Lesser subspecies, but one specimen shot by a hunter and examined by th writer proved to be the Lesser Snow Goose (*Chen hyperboreus hyperboreus*).

Many of the old time hunters of the vicinity who were questioned as to their estimate of the number of birds, stated that they had seen nothing to equal it

since the early days.—Owen J. Gromme, *Milwaukee Public Museum, Milwaukee, Wis.*

A Loon Strangled by Its Fish Food.—The writer is aware of several instances of the strangulation of the Red-breasted Merganser (*Mergus serrator*) caused by attempts to swallow a fish the greatest girth of which was larger than the extreme capacity of the opened mouth or oesophagus. In at least two cases the inability of the bird to eject the fish was due to the catching of the fins on the inside of the throat, and in one case the lower mandible of the merganser had passed through and under the skin of the fish so tightly as to make it impossible for the bird to extricate it.

It is only recently, however, that an instance of the strangulation of a Loon (*Gavia immer immer*) in this manner has been brought to the writer's attention. On November 27, 1926, Mr. L. M. Nagle, of Erie, Erie County, Pennsylvania, found a Loon dead along the beach at Water Works Park with a fifteen inch Pike Perch (*Stizostedion vitreum*) firmly fastened in its throat. Mr. E. L. Gorenflo, the taxidermist who prepared the specimen, states that the fins were so caught in the throat that it was almost impossible to disengage the fish. The Loon, according to Mr. Gorenflo, weighed approximately fifteen pounds; the fish weighed over one and three-quarters pounds. The weight of the Loon, according to the writer's experience, is somewhat over-stated.

The serrate mandibles of the merganser would tend to make ejecting such a fish a very difficult matter; it seems somewhat surprising, however, that a Loon would not be able to toss the fish up. The photograph is excellent evidence, apparently, that fish are always swallowed whole by these birds. Were the Loon to break its prey into smaller portions, a not impossible feat it would seem, such difficulties as the present one would not be encountered.—George Miksch Sutton, *Game Commission, Harrisburg, Pa.*

Some New Bird Records from Jackson County, Michigan.—European Widgeon (*Mareca penelope*).—A single specimen of this duck was observed April 4, 1925, at Portage Lake. The observers were working in pairs, and made two observations independently and without knowledge of each other.

Lark Sparrow (*Chondestes grammacus grammacus*).—A pair of these birds was seen in an old orchard, June 29, 1924. The pair had been seen here a short time before by Mr. Wm. G. Fargo. In company with the Van Tyne Brothers, of Ann Arbor, Michigan, one was taken at this spot on July 4, 1926.

Harris's Sparrow (*Zonotrichia querula*).—An adult was taken in one of the traps on October 19, 1924.

Nashville Warbler (*Vermivora ruficapilla ruficapilla*).—This species was first found here in summer on June 29, 1924, when one was found feeding a young Cowbird. A male sang from a spruce tree several times. On the following July 11, seven adults and three young were seen. The swamp was visited July 5, 1926, when an adult male and two immature birds were collected. The specimens have been deposited in the Museum of Zoology, University of Michigan, Ann Arbor, Michigan. The birds are found only in the spruces of this one swamp. Barrows in his *Michigan Bird Life* states that it is not known in the southern four tiers of counties. Undoubtedly it is attracted by the spruces.

Yellow-throated Vireo (*Lanivireo flavifrons*).—A specimen of this vireo was taken on June 27, 1926. This bird, an adult male, was found in a large piece of lowland timber composed mainly of oak, ash and hard maple. Although no nest was found it was apparently breeding. Barrows in his *Michigan Bird Life* says that it has been found nesting in the state occasionally. The feet and tarsi were of a very light blue color. This skin has been deposited in the Museum of Zoology, University of Michigan. It is the only summer specimen in the collection.—Leonard W., George S., Harold and Maurice Wing, *Jackson, Mich.*

Notes on the Varying Abundance of the Evening Grosbeak in Michigan.—The December, 1925, number of the Wilson Bulletin, p. 223, contained some notes of mine on the Evening Grosbeak (*Hesperiphona v. vespertina*) in Michigan, concerning which I desire to make it clear that the Evening Grosbeaks there mentioned were not observed at the feeding station. On a preceding page (213) of the same issue, Mr. Bayard H. Christy states that a pair was observed by him at Huron Mountain, Michigan, on May 31, 1925, in the woods on the shore of an inland lake, and he holds the opinion that they were probably belated winter visitants Since much has been written of this species, and the taking of them for winter residents, I am giving below, some notes which I think will be of interest to those who have not found them in summer.

I often heard and saw these birds as they passed overhead in small bands during the first summer that I was in Luce County, Michigan (1913), but at the time I did not know what kind of birds they were. However, as they are one of the most common birds, and were seen nearly every month of each year, they were not forgotten. On May 22, 1920, I identified these birds as the Evening Grosbeak. Since that time I have kept records of them, which are as follows:

In the year 1921, the first one was seen on January 3, and others were seen until about the last of November or the first of December. However, it appeared as if none of these birds remained in that locality through the winter of 1921-22, for the first ones were not seen in 1922 until on May 9. It also appears that none were there through the mid-winter following (1922-23), as the first record for 1923 was February 1. The winter next following (1923-24) appeared to be about the same, the first ones seen in 1924 being on February 11.

On August 13, 1924, I began keeping records of the number of birds seen each day, which, by the way, is the only way to get the real benefit of the migration and abundance of our birds. On going over by "Bird Roll Book" I find that the Evening Grosbeaks were present in numbers of from one to one hundred during the remainder of August, and were seen on every one of those days except one (August 15), a total of eighteen days. In September (1924) they

were observed on twenty-two days, and sixty was the greatest number seen in any one day during the month. During October (1924) they were less in numbers and seen on fewer days, the greatest number seen being seventeen and the bird having been seen on only thirteen days. November was about the same, they having been seen on thirteen different dates; but they were somewhat more abundant, thirty-eight being seen on November 30. During December they were seen on more days, but rather decreased in numbers, being seen on seventeen different days while the greatest number seen in any one day was twenty-seven. During January, 1925, they were seen in much smaller numbers, and on only a few days, for they were seen on only eight different days and four was the greatest number seen. In February (1925) their numbers were still less, they being seen on only four days and one being the greatest number seen. March (1925) was the same as February, only the species was seen on but three days. April (1925) brought them back to about normal numbers, they being seen on thirteen days and thirteen being seen in a single day (April 11). In May, up to the time I left that locality (on May 19), they were seen on fourteen different days and ten was the greatest number seen on any one day (May 18).

After leaving McMillan, Luce County, I did not see any Evening Grosbeaks until December 30, 1925, when I saw one at Vicksburg. One individual was also seen on each of the following dates: December 31, 1925, and January 2, 3, 5, 7, 12 and 30, 1926. It came to feed on the seeds of the Boxelder. In Luce County, where I saw them they fed to a great extent on the wild cherries, and I saw some in winter feeding on such seeds of these cherries as were yet on the tree, but their favorite food in winter in that locality appears to be the seeds of Ironwood.—O. M. Bryens, *Three Rivers, Mich.*

An Unusual Nest of the White-breasted Nuthatch.—Last year my father and I made and put up a variety of nesting boxes for the birds, as well as a few for the squirrels, which were on the sixteen acres near Atlanta that we were making into a bird sanctuary.

One box we had fixed for squirrels was a large soap box and we placed it high up in the large white oak tree, on the crest of a hill. During the spring we kept checking up on the boxes occupied and were pleased to find three pairs of Tufted Titmice, two pairs of Chickadees, a pair of Great-crested Flycatchers and a pair of Bluebirds.

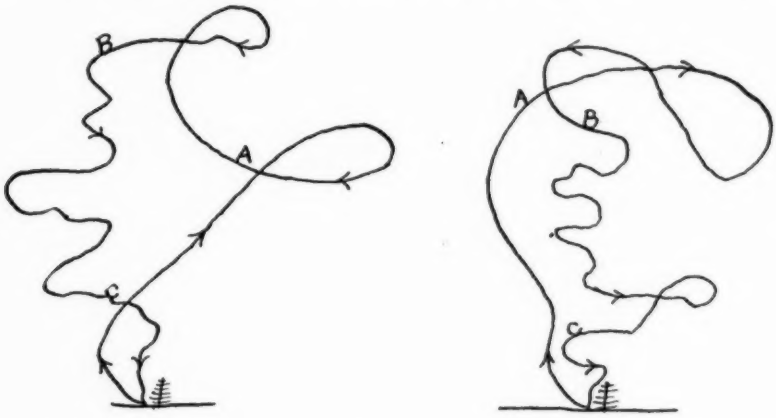
One day, standing near the crest of the hill, I saw a pair of White-breasted Nuthatches carrying strips of bark into the soap box. Often they would carry strips larger than themselves. They were very industrious and paid no attention to us. The birds used the bark to cover the entire floor of the box and the layer was about half an inch in thickness. They then proceeded to collect little pellets of dried earth and lumps of mud which was scattered thinly over tthe bark.

After this preliminary they started on the nest proper, which they placed in a back corner of the box. The nest was saucer-shaped and constructed of small twigs, grasses and rootlets.

Then, as if not quite satisfied, this unique pair discovered a dead rabbit—one that had been dead for some time—and proceeded to line the nest proper, as well as the rest of the box, with rabbit fur, so that when completed the box smelled more like a buzzard's domicile than a nuthatch's home. Brer' Rabbit's fluffy tail held a conspicuous place in the middle of the box.

In due course of time five eggs were laid, incubated and hatched, the little ones raised, and soon all were a familiar sight about the sanctuary.—LUCIEN HARRIS, *Atlanta, Ga.*

The Flight-Song of the Woodcock.—This is the second year that I have observed the remarkable flight-song of the Woodcock (*Philohela minor*). On March 10, 1926, he had returned and started his flight-song, the same as last year,



in a high, dry, open field with small, scattering coniferous trees. I have seen two other Woodcocks, performing in similar places for two years, so I know that they return year after year to the same spot. Above are two diagrams of his maneuvers. As nearly as I can tell the highest point was about 250 feet. There are five notes, at least, which he utters and I will describe them in order.

When he first flies to the spot of performance he sometimes utters a grating "*cra-ra-ra-ra.*" Then he remains on the ground a few minutes and repeats his call, an insect-like note, somewhat resembling the note of a Nighthawk (*Chordeiles virginianus*), but very hard to describe. Soon he flies up, making a loud steady whistling which is probably produced by the wings, although I have flushed many Woodcocks in the daytime and they did not make a sound as they flew off. When he has proceeded to the point marked A on the diagrams the steady whistle changes to a twittering whistle, which continues until he starts to descend (B). As he comes down, in swift zig-zag motions, he commences a loud chirping and twittering which is his real song. This is continued to point C, where all noises cease and he flutters down silently on half-drooped wings to the spot from where he flew, and the calling is again repeated.

Before utering his call, and sometimes three or four times in succession, he utters a low "*p-u-r-r*" which resembles a mother cat calling her kittens, but this can only be heard when you are within ten or fifteen feet of him. The time spent in the air at each flight is one minute or less, and the time on the ground is from one and one-half to three minutes. He calls from sixteen to forty times while on the ground and flies about twelve or fifteen times each evening except when there is a full moon. I once stayed out until after twelve o'clock on a full-moon light night watching him, and he was still performing when I left, but the stay on the ground was prolonged greatly. On cloudy nights he begins

earlier, which shows that he is controlled by the amount of light. When the evening is windy or rainy he flies fewer times and remains longer on the ground.

He is frequently answered by his mate when he calls, and sometimes she flies near him. When she does this he rises and flies after her. Once while chasing her he flew within four feet of my head as I was standing in the open field.—Loring W. Turrell, *Smithtown Branch, N. Y.*

Warbler Records for 1925 from Central Iowa.—Being located in about the central part of Iowa, and near the valley of the Des Moines River, we should really be in the path of the great warbler migration, but one must be on the alert to be fortunate enough to see them as they pass through on their northward flight, for the great wave usually passes over in a day or two. This year I was unfortunate in not being able to get out on the exact days when the wave passed over. Still, it proved to be my best year for warblers, anyway, and had I been out on May 16 I am sure that I would have listed many more.

The warblers listed as to the date of their *first* appearance were as follows: On April 12, the Myrtle Warbler; on April 19, the Louisiana Water Thrush; on April 24, the Palm Warbler and the Oven-bird; on May 3, the Blackpoll Warbler; on May 10, the Yellow Warbler and the Northern or Maryland Yellow-throat; on May 15, the Cape May Warbler, the Black-throated Green Warbler and the Redstart; on May 17, the Magnolia Warbler, the Blackburnian Warbler, the Tennessee Warbler, the Parula Warbler and the Black and White Warbler; on June 1, the Blue-winged Warbler; and on September 8, the Nashville Warbler.

I think the great wave passed over on May 16, but being unable to get out then I spent five hours in the open on May 17, when I listed the following: Maryland Yellow-throat, Redstart, Blackburnian Warbler, Yellow Warbler, Blackpoll Warbler, Tennessee Warbler, Black and White Warbler, Magnolia Warbler, Cape May Warbler, Parula Warbler, and Oven-bird, making a total of eleven species of warblers in one day. On May 19, just two days later, I spent the entire day in the open, using every hour of daylight, and listed eighty-nine varieties of birds, but this list included only six warblers, hence I concluded that the height of the warbler wave passed over central Iowa on May 16 and 17. The Blue-winged Warbler was observed on June 1 at Ledge's State Park, hence I judge that it must have been nesting there. The Nashville Warbler was captured in town, where it flew into a building. It was brought to me, and after having the specimen in our hands and examining and measuring it very carefully, there was no difficulty in identifying it as the Nashville.

None but a true bird lover can appreciate what I mean when I say that I would rather spend a day in God's great out-of-doors in the middle of May, to be thrilled by the golden flash of the beautiful Blackburnian Warbler, to watch the stately Black-throated Green Warbler, with his wonderful plumage, and the dizzy gyrations of the beautiful fan-tailed Redstart, to see the dainty little Magnolia Warbler and the plodding Black and White Warbler, and to listen to their marvelous music, than to wander down through great avenues of man-made structures and listen to man's mechanical music, and I sincerely hope that our forests and our warblers may be preserved for us for all time to come, that as we grow older we may renew our youth each spring when we go out to watch for these, the most beautiful of all our songsters.—W. M. Rosen, *Ogden, Iowa.*

BIRD BANDING NEWS

Conducted by Wm. I. Lyon

BANDING FRANKLIN'S GULLS IN ALBERTA

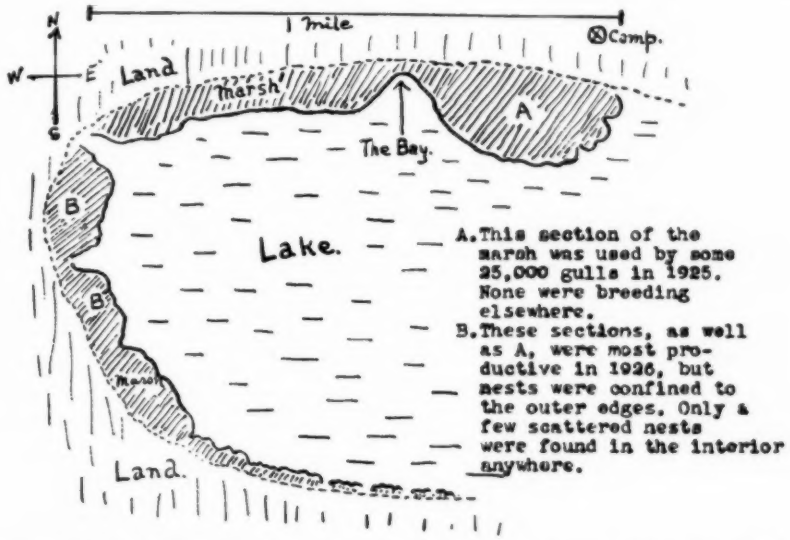
BY WILLIAM ROWAN

Any serious student of migration must have investigated at some time or another the possibilities of the banding method as a means of solving some of the problems of migration. An analysis soon convinces one that some ways of banding are likely to be far more remunerative than others. Examination of the literature, moreover, reveals the fact that systematic banding is superior to promiscuous banding and that the ringing of young of some selected species in large numbers is more likely to be productive of results that can be scientifically utilized than the casual and indiscriminate banding of birds in migration. True, any banding, if properly carried out by qualified individuals who know what they are doing and know the birds they are handling is likely to produce results of one kind or another—sometimes of quite unexpected interest—but a systematic effort with definite objects in view is the method *par excellence*. It was with something of this sort in mind that the writer decided to make an attempt to band 10,000 young Franklin's Gulls from a single colony in a single season. The Franklin's Gull was chosen for a number of reasons. A large gullery, easily accessible from Edmonton, has been kept under observation for some years. The habits of the birds have been studied and records kept of the dates of arrival and departure. The Edmonton district is not far off the northern limits of the species, a fact that is likely to add much interest to the returns. Related species have been intensively studied by the banding method in Europe and have produced results of exceptional interest from the writer's particular viewpoint. From our observations on this colony we have concluded that birds do not breed until they have attained their second year. Returns from banding may throw light on the movements of these immature birds and so contribute to one of the most important of the theoretical aspects of migration. The colony was so large that it offered an exceptional opportunity for utilizing it and it alone for the banding of a number sufficient to be really useful, a great point in its favor. Lastly, the general situation was so unusual and favorable that it looked as though the project could be carried through in a single morning. Although two were finally devoted to it, had it threatened to be a long drawn out affair time could not have been found to attempt it.

It seems a pity that banding is so frequently alluded to as an experimental method, for it is strictly not experimental at all. There is no interference with natural conditions, no interruption of the subject's normal life and activities. It is merely marked and made recognizable, the expected return depending on the vagaries of fortune.

A description of the breeding ground is essential for a correct understanding of the undertaking. It consists of a marsh some two and a half miles in length fringing a bay, the mouth of which faces approximately east. The marsh attains its greatest width of about 250 yards along the north arm. About three-eighths of a mile from its commencement is a deep bay where the open water comes within 30 or 40 yards of the shore. Beyond this the marsh widens appre-

ciably again but thins out towards its other end, finally dwindling out altogether. In previous years nests have been entirely confined to the section of the northern arm lying to the east of the bay. (A, sketch map). Here some 20,000 birds were breeding in 1924, the estimate being arrived at by a count of the nests over selected and representative areas. In 1925 there were probably over 25,000 adults. At least the same number of young must have been available for banding. The nests were so thickly packed that it was impossible to walk between them in many places without dragging some of them into the mire and upsetting numerous eggs. The lake, which has been dropping for many years, showed signs of rising again in 1924. The following year it had again risen slightly, but even so the water in the marsh was only a few inches deep. Open stretches were limited in extent and barriers of matted reeds occurred everywhere. Twenty-five young



were ringed in 1925. They were picked up in a few minutes without trouble as they could not make their escape through the natural barricades. All the circumstances together, therefore, offered ideal conditions for intensive banding—an almost unlimited supply of birds, shallow water, and the whole marsh an intricate net work that precluded the necessity of lengthy and strenuous chases after the quarry. Arrangements were made with the Biological Survey for a supply of 10,000 bands, provided that the birds returned in their expected numbers in 1926. During the first week of May this year the colony was visited. Although early, the birds were then returning in promising numbers. A report to that effect was sent in to the Survey and the bands ordered for the middle of June.

My plan of campaign was briefly this. In the first place, I had very little time at my disposal and my aim was to get the entire 10,000 banded in one morning. From the time involved in ringing the 25 young in 1925, I estimated that under the same conditions (those just described) any normally active individual should manage to band 100 birds per hour, provided that certain arrangements were made beforehand. (See below). I therefore enlisted 20 willing souls

to join in the fray which was scheduled to last for fire hours, every one to dispose of 500 bands in that time. The date finally selected was June 24.

We encountered the first hitch before we left town when nearly half the party for various reasons found that they could not come. Only 13 instead of 20 actually took part. One of these was chiefly engaged in photography, leaving only a dozen active banders. We left Edmonton on the evening of the 23d and motored 60 miles to camp, the cars being very kindly provided and driven by the owners who took part in the activities. It was dark when we arrived and the volume of sound coming from the gullery was much slighter than it should have been and appeared to be spread out over the whole marsh. This was a bad omen, for it meant that the concentration of young, largely depended upon for making time, would prove a myth in the morning. At 5 A. M. we prepared breakfast and aroused the party. The night had been very cold or reveille would have been at least an hour sooner. By six o'clock we were in the marsh and here we received our greatest disappointment. The lake had risen considerably, the water being from knee to waist deep on the outer edge. There were innumerable runways, some of them 100 yards or more in length. The densely matted interior of the usual breeding section (A) was devoid of nests altogether, only the outer fringe in the deeper and more open water being in use. Adults were flying all over the two and one-half miles of marsh and as we had surmised in the dark the previous evening and ascertained for certain later in the morning, they were nesting along its entire length and, moreover, on the outer edge only. It was quite evident, in fact, that our fate was sealed. There was not the remotest chance of banding 10,000 young during the morning. All the ideal conditions of the last two years that had made the proposition so tempting had disappeared.

As we proceeded we became aware of the worst of all the tricks that fate had played us. The actual number of the gulls, all sections included, was probably less than a third of the number that had occupied the limited eastern portion alone the previous year. As though all these troubles were not enough we found the number of two eggs to a clutch extremely high and the rate of mortality excessive. In addition to the usual fate—violent death—that always befalls a certain percentage of young in such a colony, many were suffering from a disease with well defined symptoms of which nothing seems to be known and which we are now attempting to diagnose from preserved material. The total number of available chicks was thus only about a fourth to a fifth of what we had expected to find and they were scattered all over creation with every facility for giving us those exhausting chases that we had reckoned upon avoiding.

At nine o'clock we came in for refreshments and a badly needed rest. A rough tally showed that only some 3,000 bands had been disposed of. Banding was continued from 10 to 12 when the last worker came in so tired out that he could hardly stand. Several had reached the limit of endurance long before. We were then a few hundred short of 5,000. After a long rest, the return to Edmonton was made. Three members (Messrs. Taverner, Harrold, and Laing) stayed on till the next evening to complete the 5,000.

It is of interest to note particularly that five of us, in spite of all the handicaps and unexpected difficulties, placed over 500 bands each in five hours. My original estimate of 100 per hour per bander was therefore not in the least too sanguine and had conditions remained as they were the year before the rate

would have considerably exceeded the estimate. Mr. C. G. Harrold made record time with 600 bands.

On the occasion of this first visit it was quite evident that the usual large second instalment of hatching would not be available this year, for nearly every egg had already hatched. It was therefore imperative that a second attempt should be made inside ten days. While not a single youngster was flying on June 24, a few were getting well grown. Our hopes of ultimate success by means of a second onslaught rested chiefly on the western end of the marsh (B. B.) where we had banded but few chicks on the first trip and where they were comparatively abundant.

My efforts to raise a party for the week-end of July 3-4 were abortive. It was a universal holiday week-end. Every day now lost meant some hundreds of birds less available than the previous day could offer. I attempted to arrange a party for the middle of the week but this was equally futile. On July 10, however, nine of us left Edmonton after lunch and two more came in from Camrose in the evening. The week's delay was fatal. Thousands of young had learned to fly and had left the marsh for good. We worked for a couple of hours that evening and from 7 to 11 o'clock on Sunday, the 11th. The total for both trips finally proved to be only 6,725. Words cannot describe the labor of that second visit. Every step in the sticky ooze that makes the marsh bottom was an effort to begin with, but towards the end it felt as though 50-pound weights were tied onto our feet. All the birds were on the verge of flying. To race them through the open water was well nigh impossible. Each band placed that day involved mental as well as physical effort and one bander after another dropped out from sheer exhaustion; and by 11 o'clock the effort had automatically come to a conclusion. The last bander was played out.

At the very end, those of us who still survived, attempted a drive round the margin of the home end of the marsh, hoping to get the chicks onto dry land and into rough, tall grass where catching and banding would have been relatively simple operations. A hundred yards from shore we had at least 2,000 birds before us and virtually had them in our hands. And just at this point the whole maneuver failed through lack of co-operation. It was unfortunate, but could not be helped, for two of the herders guarding strategic points, collapsed in the reeds, incapable of moving another yard. The birds just seeped away and we only landed three or four hundred. The behavior of the young in the grass was quite interesting. They could not see the marsh, nor even the lake on account of their short legs and the height of the herbage, yet they waddled off in a bee line for home as soon as released. They no doubt took aural bearings from the parental hubbub in the marsh. All these birds were large and nearly able to fly or we should not have adopted these tactics.

With regard to the second visit, there is one point of special interest. On our first trip we had refrained from banding the very small chicks, the diseased and the injured. On the second occasion not a single banded bird was found dead. The point is well worth special mention in view of the criticisms so often leveled at the banding of chicks in such colonies.*

*Mr. J. A. Munro, Chief Federal Bird Officer of Western Canada, later made a trip through the marsh and found one banded chick dead. Since then we have had several duck shooting trips to the marsh and the adjacent shore lines and on occasion have hunted particularly for dead gulls. Including Munro's bird, four only have been found.

In conclusion, a word of explanation on the subject of the preliminary arrangements referred to above. The type of band used was, at my request, the simple split ring. These were specially made for the occasion of extra heavy metal at the instigation of the Biological Survey. They arrived strung in numerical order on wires, a thousand to a string. On account of their stoutness they were quite difficult to open with the fingers. It was evident that if any reasonable rate of banding was to be kept up the bands would have to be opened beforehand. This was imperative from the psychological viewpoint also. With one or two exceptions none of my volunteers was interested in banding. Had the "chore" of opening the bands been thrust upon them all enthusiasm would have died an inevitable death at the outset. The bands were therefore supplied ready opened. The opening gave two people a long day's work at the best speed they could make. Tough paper bags, numbered from 1 to 200 in large figures on the outside were used to hold the bands, 50 going into each bag, the first 50 into No. 1, the second 50 into No. 2 and so on. When camp was reached and the first sortee made bags 1 to 13 were first distributed, one bag to each bander. A second round was then given out, bags 14 to 26, and so on till each bander had five bags containing 250 rings. After instructions had been issued as to how and where to place the band, etc., each bander was particularly requested to use up the bags in numerical order. No attention had to be paid by the workers to the actual numbers of the bands. The bag in current use was emptied into a convenient pocket and the bands drawn out at random. When the first return to camp was made the majority had used all five bags, but some had one or two over complete while others returned with broken fifties. Before the second sortee was made these odd bands were collected up and redistributed into the pockets of all for immediate use. More bags were served out as well, a few extra going to the more active members. At the end of the morning, when all came in for good, the broken fifties were set aside to be disposed of first thing the following day by those remaining. And so the irregularities, inevitable in using such methods, were smoothed down. On the second trip, which proved so wearisome, breaks in series were more serious and the used numbers toward the end were freely interspersed with those unused. This has unduly complicated the returns, but then the difficult situation we had to contend with was wholly unexpected. My original intention was to collect up the odd bands as soon as the party came in and return to the marsh with a couple of helpers and dispose of them then and there and so irradicate the breaks. As it was we were stiff, aching, completely exhausted, suffering from cramp and barely able to lift our own legs, even on *terra firma*. And so the breaks were regretfully left as they were and the ragged records returned. This unforeseen contingency has suggested improvements on the method employed which would be adopted on a future occasion.

Finally I should like to express my heartiest thanks to the members of my parties who worked like Trojans and did all in their power to make the undertaking a success. The parties were made up as follows:

June 24—Mr. P. A. Travener and his field workers, Messrs C. G. Harrold and Hamilton Laing who travelled 120 miles by road to participate; Mr. B. Lawton, Game Commissioner of Alberta; Dr. R. A. Rooney, President of the Northern Alberta Game and Fish Protective League; Professors E. H. Strickland, D. A.

MacGibbon, and O. J. Walker; Messrs. D. E. Cameron, E. Stansfield, H. P. Mullet, and B. J. Mair.

July 10 and 11—Professor Strickland (the only repeat); Messrs. R. B. Sandin, G. F. K. Buckley, J. Lehmann, W. H. Kutz, A. Mail, A. Revell, L. Wise; Messrs. F. L. Farley and A. Twomey, both from Camrose.

Although this account of our banding is strictly a record of failure rather than of achievement, we can confidently look forward to returns of a particularly valuable kind, for all the birds were banded as young, i. e., at the beginning of their life's journey as well as of their first migration, in one season and from a single colony. Although we fell short of even seven thousand, it is a useful number, for a four per cent return may legitimately be expected from gulls. Our first distance record (about 30 have since come in) is in itself sufficiently remarkable for on July 14—two days after we had banded the last of them—No. 446128, (one of the first five thousand), was picked up near Tioga, N. D., crippled. On June 24 there was not a chick in the marsh that could fly. Not one was as advanced as the largest non-fliers handled on the second trip. No. 446128 could not have been a-wing for two weeks, yet it had covered nearly 600 miles of its long trip to the southern hemisphere, a truly noteworthy performance.

University of Alberta,
Edmonton, Alberta.

PROCEEDINGS OF THE WILSON ORNITHOLOGICAL CLUB

Thirteenth Annual Meeting

The Thirteenth Annual Meeting of the Wilson Ornithological Club was held at Chicago, Illinois, on Friday and Saturday, November 26-27, 1926. The Inland Bird Banding Association met at the same time and place in conjunction with the W. O. C. During the day the sessions were held in the lecture room of the Chicago Academy of Sciences; on Friday evening a session was held in Fullerton Hall of Chicago Art Institute especially for the public, though all sessions were open to the public. On Saturday the annual banquet was held at the Parkway Hotel. On the following day, Sunday, two parties were formed by those who remained over the week-end; one group assembled at the Field Museum of Natural History; another group visited the new sanctuary, located on reclaimed ground, which is now a part of Lincoln Park.

THE CHICAGO PROGRAM

Friday, November 26, 1926

Forenoon Session, 9:30 O'clock.

Lecture room of the Chicago Academy of Sciences.

Address of Welcome. Dr. Henry C. Cowles, President of the Chicago Academy of Sciences.

In extending a cordial welcome to the Academy Dr. Cowles referred to the fact that the Wilson Ornithological Club held its initial meeting in the same room just thirteen years ago.

Response in behalf of the Wilson Ornithological Club and the Inland Bird Banding Association. William I. Lyon.

GROUP AT THE THIRTEENTH ANNUAL W. O. C. MEETING, AT CHICAGO

KEY TO GROUP PICTURE: 1, Sherman Coryell. 2, Dr. Alfred Lewy. 3, Mrs. Alfred Lewy. 4, Robert Lewy. 5, Chresswell J. Hunt. 6, Mrs. H. C. Miller. 7, Mrs. W. D. Richardson. 8, Mrs. Howell. 9, C. W. G. Eifrig. 10, O. M. Schantz. 11, Wm. I. Lyon. 12, Benj. T. Gault. 13, Lynds Jones. 14, T. C. Stephens. 15, A. F. Ganier. 16, F. C. Lincoln. 17, S. Prentiss Baldwin. 18, Herbert W. Brandt. 19, George Finley Simmons. 20, W. N. Keck. 21, Weir R. Mills. 22, Edward Komarek. 23, Harold C. Wilson. 24, F. W. Rapp. 25, Ruthven Deane. 26, Frank Grassett. 28, Clifford Dorsey. 29, L. Ermil Butler. 30, Mrs. Ruthven Deane. 31, S. E. Perkins III. 32, Wm. Youngworth. 33, Mrs. H. L. Baldwin. 34, Russel Lee Walp. 36, F. H. Letl. 37, Mrs. A. L. Feser. 38, Mrs. E. T. Barody. 39, Oscar P. Allert. 40, Belle Wilson. 42, Dorothy Vent. 43, Catherine A. Mitchell. 44, Marjorie Ruth Ross. 46, Emeline C. Bates. 48, Mrs. S. H. Adams. 49, Mrs. C. Bretsch. 50, Mrs. Thos. Cox. 51, Mrs. W. E. Trainer. 52, Mrs. F. H. Pattee. 54, Helena Woltman. 55, Mrs. C. O. Decker. 56, Emeline Lutz. 57, F. H. Pattee. 58, Clarence Bretsch. 59, Mrs. Anna M. Neu. 60, Chas. G. Pickert. 61, C. O. Decker. 62, J. W. Magann. 63, Mrs. C. G. Pickert. 64, Mrs. Hiram Towns. 65, J. W. Stack. 66, Warner Taylor. 67, C. W. Melcher. 68, Wm. G. Fargo. 69, M. M. Smith. 70, Pierce Brodkorb. 71, Mrs. C. W. Melcher. 72, A. Sidney Hyde.

1. Intensive Bird Study at Riverside Park. S. E. Perkins III, Indianapolis, Indiana. (Chart).

   Intensive observations over an eight-acre area revealed an average of twelve nests per acre. Sixty-four species were found during the year. Fifty-five nests were found in June, twenty-six in July. Ninety-eight fledglings were banded; ninety escaped unbanded. The author's only returns from the Gulf States were birds which had been banded as fledglings.

2. Some Notes on the Junco. Mrs. F. W. Commons, Tanager Hill Station, Crystal Bay, Minnesota.

3. Trapping the Shorebirds. Clarence S. Jung, Milwaukee, Wisconsin.

   Work with the shorebirds was instituted by Herbert L. Stoddard. An attempt was made with a common sparrow trap, but it was discarded as useless. Next day, however, it contained two sandpipers. It is now suggested that a sparrow trap with funnel at both ends be used, thus getting the birds from both directions. A line of netting, two or three inches high, may extend for several feet outward from the trap entrance, thus effecting a very large funnel. Many shorebirds have been trapped by this method especially the Least, Semipalmated, and Spotted Sandpipers. Of eight Spotted Sandpipers banded in one afternoon, six, when released swam under water for a short distance, then arose to use the wings in flight.

4. The Home Life of the Turkey Vulture. Russel Kempton, Richmond, Indiana. (Read by P. B. Coffin).

   The female bird makes the "nest" by breaking bits of decayed wood from the walls of the cavity. Nest did not become foul.

5. Developing a District. Mrs. H. C. Miller, Racine, Wisconsin.

   There are many methods of arousing interest in birds and their study by the banding method. It is a problem of organization.

Afternoon Session, 1:30 O'clock.

Lecture room of the Chicago Academy of Sciences.

6. Banding Franklin's Gulls in Alberta. William Rowan, Edmonton, Alberta, Canada. (Read by S. E. Perkins III). This paper appears in full in this number.

7. A Thermo-couple Device for Recording Nest Activities. S. Prentiss Baldwin, Cleveland, Ohio.

   In order to secure a complete record of the movements of the parent birds at several nests simultaneously an instrument known as a thermo-couple was devised. A network of wires was placed in the body of the nest before the eggs were laid. The slightest change of temperature affecting the wires caused a flow of electric current to an automatic recording needle. The record sheet would then show the length of time the old bird was on or off the nest. This device keeps a complete and continuous record throughout the twenty-four hours of day and night. A roll of paper about sixty feet in length is necessary for the record of the usual three weeks of nest activities before the hatching.

8. The Mentality of the Crow. William Brewster Taber, Jr., Kansas, Illinois. (Read by C. S. Jung). This paper appears in full in this number.

9. The Voyage of the Blossom. George Finlay Simmons, Cleveland, Ohio. (Lantern slides).

   This intensely interesting narrative of the long voyage of this small sailing vessel, about two-thirds of the size of the Santa Maria under Columbus, was one of the features of the meeting. The speaker defined adventure as "misfortune happening to someone else a great way from home." Starting from the Atlantic coast the cruise of the Blossom led through the Sargasso Sea, to the Cape Verde Islands, south along the coast of Africa, stopping at Ascension, and St. Helena, thence across the Atlantic Ocean to the east coast of Brazil. The story of the trip is to be told in book form.

10. The Gull, Tern, Heron, and Cormorant Campaign. William I. Lyon, Waukegan, Illinois.

This was a narrative account which was published in substance in the last issue of the Bulletin.

11. Trapping Ducks in the Bear River Marshes of Great Salt Lake, Utah. F. C. Lincoln, U. S. Biological Survey Washington, D. C. (Lantern slides).

The Bear River marshes probably provide the largest duck breeding area in the United States, although there are larger ones in Canada. There is also a colony of Snowy Herons in this region. Trapping operations were carried on here, and as many as 300 ducks (mostly Redheads) were trapped and banded in one day. The alkali flat near Bear River becomes very hot in summer, and great cracks appear. Seeds and insects blown by the wind, accumulate in these cracks, and become saturated with the free alkali. Later ducks are poisoned by eating this alkali-soaked material. Thousands of ducks die from this cause, many more doubtless recover. The remedy seems to lie in preventing this strong alkali concentration. A dam across the Bear River would probably accomplish this. The sick ducks recover if placed in fresh water. Of the ducks banded in 1926, forty-three returns had been reported up to November 25, 1926. These returns came from Wyoming, Colorado, Kansas, Texas, Idaho, Montana, California, Nevada, and one came in October from Minnesota. These returns are interesting in showing that the Bear River marshes of Utah are a source of supply of ducks throughout the greater portion of the west.

Evening Session, 8:00 O'clock.

Fullerton Hall in the Chicago Art Institute.

12. Introductory Address. Lynds Jones, Oberlin College, Oberlin, Ohio.

Dr. Jones presented a general historical account of American ornithology, including, at the end, a brief account of the origin of the Wilson Ornithological Club and other enterprises of the eighties and nineties.

13. The Life History of the House Wren as Worked Out in a Bird Research Laboratory. S. Prentiss Baldwin, Cleveland, Ohio.

Observations are made without the use of blinds. Eggs and young are handled frequently, and are even carried from the nest to the laboratory for weighing. Males are usually in excess of females, and they arrive first in the spring. He builds a nest but no lining is put in until a mate is secured. After acquaintance is established the watchers can distinguish the individuals of a pair, not by color, but by actions. The female does not allow the male in the nest after the eggs are laid. Under these circumstances the male quite often picks up another mate and starts a new household. After the first brood is hatched the female may succeed in turning them over to the care of the parent male, while she becomes interested in the supernumerary males, these facts being easily determined by the numbered bands on the birds. The young birds are banded with safety on the eighth day, having by that time reached their full size.

Saturday, November 27, 1926

Forenoon Session, 9:30 O'clock.

Lecture room of the Chicago Academy of Sciences.

14. Wild Life Areas for the Protection of Birds and Mammals. Gordon Wilson, State Teachers College, Bowling Green, Kentucky.

A discussion of the sanctuary idea with special attention to local work.

15. Our Changing and Vanishing Bird Habitats. C. W. G. Eifrig, River Forest, Illinois.

A description of seven or eight natural bird haunts in various parts of the country which have succumbed to modern development.

16. A Big Day for the Quartette. W. M. Rosen, Ogden, Iowa. (Read by Miss Catherine A. Mitchell).

An account of a full day's field work in which a very large list of birds was secured, including some rare ones for the locality.

17. Bird Life in the Yukon Delta. Herbert W. Brandt, Cleveland, Ohio. (Lantern slides).

A fascinating narrative of travel and bird study in a far off corner of our western hemisphere. The locality described was 300 miles north of the tree limit, where the Eskimos are at home. Shorebirds were abundant here, including sandpipers, phalaropes, and turnstones. Eider Ducks, Pintails, the Black Scoter, the Emperor Goose, Loons, Ptarmigan, various gulls, and the American Rough-legged Hawk were observed. Pictures of many species, made under difficult conditions, added greatly to the interest of this hour's lecture.

18. Birds of the West Coast of Ireland. Benj. T. Gault, Glen Ellyn, Illinois.

Mr. Gault has recently returned from a sojourn of two years in Ireland, during which time he took advantage of every opportunity to study the bird life, especially along the coast. He became interested particularly in the Puffin, Lesser Black-backed Gull, Fulmar Raven, Hooded Crow, etc.

Afternoon Session, 1:30 O'clock.

Lecture room of the Chicago Academy of Sciences.

19. The Yellow-crowned Night Heron as a Summer Resident. Albert F. Ganier, Nashville, Tennessee.

20. Bird Study from an Automobile. Lynds Jones, Oberlin College, Oberlin, Ohio. This paper is published elsewhere in this issue.

21. The Wilson Club Endowment Plan. Albert F. Ganier, Nashville, Tennessee.

22. Wild Life in the Land o' Lakes of Wisconsin. Owen J. Gromme, Public Museum, Milwaukee, Wisconsin. (Motion pictures).

One reel depicted the home life of a number of common birds, such as the Kingfisher, the Red-winged Blackbird, etc. Another reel gave glimpses of the Turkey Vulture and several hawks. The pictures of the Loon at its nest were, however, the most unusual and attractive. It is probable that the Loon has never before been so successfully photographed.

23. Catching Chimney Swifts and the Results. Herbert L. Stoddard, Beachton, Georgia. (Motion pictures).

An account of remarkable results in trapping and banding a single species. It is comparatively easy to capture Chimney Swifts in quantity by placing traps over chimneys in which they are roosting. Considerable improvement has been made in the construction of these traps with the experience of several years. In 1924 only 74 Chimney Swifts were banded; in 1925 the number banded was increased to 2,264; while 3,530 were banded in 1926. From one chimney alone 856 were trapped and banded. Apparently the birds do not follow a definite line of movement. One of the 1924 swifts was captured in New Hampshire; another which was banded in 1925 was retaken in Massachusetts. A swift banded in Florida in August was retaken in Georgia in September. They may even travel somewhat northward in their fall movement.

Evening Session and Dinner, 6:30 O'clock.

Egyptian Room of the Parkway Hotel.

Annual Dinner of the Wilson Ornithological Club, with the Inland Bird Banding Association.

Exhibition of the motion pictures made by Norman McClintock, of Pittsburg, at Larchmound, the home of Robert Ridgway, near Olney, Illinois. The pictures were explained by O. M. Schantz.

Following this a number of persons were called upon informally for remarks. Reference was made to the absent founders and honorary members, and the officers were asked to send greetings to these gentlemen in behalf of the Club.

Business Session. During the regular program sessions on Saturday, November 27, the following committees were appointed:

Committee on Nominations: C. W. G. Eifrig, Chairman ,Warner Taylor, Herbert W. Brandt.

The thirteenth regular busines session was called to order at 5:00 P. M., November 27, 1926, with President A. F. Ganier in the Chair. Miss Marjorie Ruth Ross was appointed Secretary *pro tempore*.

The New Treasurer
J. W. Stack

The Endowment Committee, consisting of V. C. Bonesteel, Chairman, O. M. Schantz, and Clarence Bretsch, offered a report through Mr. Bretsch. The Committee recommended that (a) the Wilson Ornithological Club become incorporated, (b) that a campaign to raise a permanent endowment fund be inaugurated at the earliest possible time, (c) that such funds, when collected, be deposited with a corporate trustee under a trust agreement to be approved by the Club. These recommendations were adopted. The Committee also presented for approval a proposed trust agreement. This agreement was adopted as presented, with the exception of a clause relating to certain geographical limitation; and the Committee was instructed to re-write the document with the alteration. Some members misapprehended, perhaps, the intent of the original wording; it was not intended to limit the "dissemination of knowledge" nor the distribution of the magazine, but only the disposition of the fund itself in case the W. O. C. should become defunct. The re-written document is printed in full below.

The officers were instructed to make arrangements for life membership, drawing up, if necessary, an amendment to the Constitution.

The Committee on Nominations presented the following report:

For President—Lynds Jones.

For Vice-President—Thomas H. Whitney.

For Treasurer—J. W. Stack.

For Secretary—Howard K. Gloyd.

For Councilors—P. B. Coffin, Dr. Alfred Lewy, Chreswell J. Hunt, Clarence Bretsch, A. F. Ganier.

The report of the Committee was unanimously adopted, and the gentlemen named were declared the elected officers for the ensuing year

Howard K. Gloyd, *Secretary*.

THE REGISTER OF ATTENDANCE AT THE CHICAGO MEETING

From the DISTRICT OF COLUMBIA: Frederick C. Lincoln, Washington. From PENNSYLVANIA: Marjorie Ruth Ross, State College. From GEORGIA: Herbert L. Stoddard, Beachton. From TENNESSEE: L. P. Bellah, Edwin B. Johnson, Mr. and Mrs. A. F. Ganier, Nashville. From MINNESOTA: Mr. and Mrs. Frank W. Commons, Minneapolis. From MICHIGAN: Wm. G. Fargo, Jackson; F. W. Rapp, Vicksburg; M. M. Smith, Negaunee; Prof. J. W. Stack, East Lansing; Mr. and Mrs. Edw. R. Ford, Grand Rapids. From INDIANA: Mrs. Wm. C. Gardner, Mrs. Robert Geddes, Mr. and Mrs. S. E. Perkins III, Indianapolis; Mr. and Mrs. Clarence Bretsch, Gary; Patrique Menigue Hogan, Williamsburg; Henry A. Pershing, South Bend. From OHIO: S. Prentiss Baldwin, Herbert W. Brandt, Mr. and Mrs. George Finlay Simmons, Cleveland; Russell Lee Walp, Youngstown; Prof. Lynds Jones, Oberlin. From IOWA: O. P. Allert, McGregor; Prof. Charles Reuben Keyes, Mount Vernon; Weir R. Mills, Pierson; Mr. and Mrs. W. C. Nelson, Des Moines; William Youngworth, T. C. Stephens, Sioux City. From WISCONSIN: O. J. Gromme ,Clarence S. Jung, Mrs. Hiram Towns, Milwaukee; Prof. Warner Taylor, Harold C. Wilson, Madison; Mrs. H. C. Miller, Clarke C. Miller, Racine; Prof. Warren N. Keck, Milton. From ILLINOIS (outside of Chicago): Esther A. Craigmile, Prof. C. W. G. Eifrig, River Forest; Pierce Brodkorb, Mr. and Mrs. Frederick H. Pattee, Mrs. Lester W. Jones, Evanston; Orpheus Moyer Schantz, W. F. Schantz, Nellie J. Barody, Berwyn; Mr. and Mrs. N. S. Rosenblum, Wm. I. Lyon, Mary C. Lyon, Waukegan; Mr. and Mrs. G. W. Mason, Elsie Potter, Zion; J. Wilbur Magann, E. V. Komarek, J. G Hufmeyer, L. Ermil Butler, Clifford Dorsey, Oak Park; Frank H. Letl, Sublette; Mr. and Mrs. C. W. Melcher, Hinsdale; E. Seymoor Burge, Willmette; Gladstone Califf, Deerfield; George E. Hawkins, Lake Zurich; Catherine A. Mitchell, Riverside; A. Sidney Hyde, Urbana; B. F. Berryman, Elgin; Frank G. Grassett, Glencoe; Benj. T. Gault, Glen Ellyn; Mrs. W. E. Trainer, La Grange. From CHICAGO: Dr. Henry C. Cowles, Chreswell J. Hunt, Sherman Coryell, Mrs. A. L. Feser, Mrs. A. J. Cramp, Emeline C. Bates, P. B. Coffin, Mr. and Mrs. Ruthven Deane, Dr. R. M. Strong, Lucy V. Baxter Coffin, Alta R. Cox, Dr. and Mrs. W. D. Richardson, Mrs. H. L. Baldwin, Helena Woltman, Mrs. Charles C. Pickett, Mrs. S. H. Adams, Mrs. Anna M. New, Emeline Lutz, Dr. Alfred Lewy, Mrs. Theron Colton, Mrs. M. D. Munn, Margery Wollett, P. L. Whiting, Belle Wilson, Minnie M. Newton, Earl G. Wright, Mrs. Alfred Lewy, Mrs. A. B. Crosby, Mrs. Frederick W. Blocki, Mrs. Oscar Hebel, Mr. and Mrs. J. Decker, Dorothy Event, Ethel W. Seed, Elizabeth Johnson.

SUMMARY OF ATTENDANCE. District of Columbia, 1; Georgia, 1; Pennsylvania, 1; Minnesota, 2; Tennessee, 4; Michigan, 6; Ohio, 6; Iowa, 7; Indiana, 8; Wisconsin, 8; Illinois (outside of Chicago), 31; Chicago, 37; Total, 112; Total outside of Chicago, 75. Total attending the banquet, 61.

REPORT OF THE TREASURER FOR 1926

Dayton, Ohio, January 20, 1927.

Receipts for 1926

Cash in bank, January 1, 1926	$ 251.18	
Sustaining Dues	340.00	
Active Dues	502.50	
Associate Dues	405.00	
Subscriptions	39.85	
Contributions	128.35	
Endowment Fund	25.00	
Back numbers of Wilson Bulletin	59.60	
Reprints	2.25	
Total receipts		$1,753.73

Disbursements for 1926

One-half expense of Kansas City meeting	$ 24.12	
Treasurer's office, postage and printing	17.32	
Secretary's office, month by month	141.96	
Verstegen Printing Co., December (1925), March, June, and September Bulletins	1,084.20	
Official stationery	17.50	
Verstegen Printing Co., cover etching	9.62	
Cuts for Bulletin	71.94	
Morningside College, addressing and Editor's expense	16.86	
Verstegen Printing Co., 4,000 mailing envelopes	27.00	
		$1,410.52
Endowment fund		25.00
Cash in bank, January 15, 1927		318.21
Total disbursements		$1,753.73

Ben. J. Blincoe, *Treasurer.*

REPORT OF THE SECRETARY FOR 1926

To the Officers and Members of the Wilson Ornithological Club:

Permit me to submit the following report of the activities of the Secretary's office for the current year to date.

A campaign for new members has been in progress throughout the year. In January a circular letter was sent to the entire membership of the club asking that each person send the Secretary names of prospective members. Only 181 replies were received, an unfortunately low percentage. To these people and to others whose names were secured from other sources, there were mailed 1,340 form letters contaning information about the W. O. C., and an invitation to join. To date 125 new members have been added to the roll; 3 sustaining, 25 active, and 97 associate members. Several new subscriptions to the BULLETIN were secured by the Editor and one by the Secretary.

The new members are distributed by states as follows: Alabama 3, Arkansas 1, California 3, South Carolina 1, Colorado 3, Connecticut 1, North Dakota 3, South Dakota 1, Florida 1, Illinois 19, Indiana 5, Iowa 14, Kansas 5, Kentucky 1, Massachusetts 2, Michigan 12, Minnesota 4, Missouri 1, Nebraska 1, New Hampshire 1, New Jersey 1, New York 8, Ohio 12, Oklahoma 5, Oregon 1, Pennsylvania 4, Tennessee 3, Texas 1, Virginia 1, West Virginia 1, Washington 1, Wisconsin 2, District of Columbia 3.

The officers and others responsible for these new members are: H. K. Gloyd 39, T. C. Stephens 19, Gordon Wilson 5, W. I. Lyon 5, J. W. Stack 4, A. F. Ganier 2, Ben J. Blincoe 1, and from names given to the Secretary by various other members 51.

Our total membership to date numbers 620; honorary 4, sustaining 73, active 216, associate 327. In addition to these the BULLETIN has 38 subscribers and 27 exchanges, according to the Secretary's files.

The total membership distribution by states is here given: Alabama 10, Arkansas 4, California 24, North Carolina 1, South Carolina 5, Colorado 8, Connecticut 5, North Dakota 6, South Dakota 6, Florida 9, Georgia 6, Idaho 1, Illinois 72, Indiana 14, Iowa 68, Kansas 7, Kentucky 21, Louisiana 1, Maine 1, Maryland 3, Massachusetts 14, Michigan 40, Minnesota 8, Mississippi 3, Missouri 17, Nebraska 13, New Hampshire 2, New Jersey 9, New York 33, Ohio 68, Oklahoma 14, Oregon 4, Pennsylvania 18, Tennessee 24, Texas 10, Utah 1, Virginia 5, West Virginia 6, Vermont 3, Washington 2, Wisconsin 19, Wyoming 1, District of Columbia 17. Foreign: Canada 13, Brazil 1, Philippines 1, China 1, Cuba 1.

During the current year our roll has been decreased as follows: deceased 6, resigned 21, dropped for non-payment of dues 6, dropped because whereabouts are unknown 3. (Since the Nebraska Ornithologists' Union ceased to be connected with the W. O. C., 39 of these members have been discontinued).

Analysis of these figures readily indicates that there is much room for extension of efforts in the Middle West and South. It is to be hoped that all members of the organization will take an active interest in strengthening our ranks in these localities.

As shown by the Treasurer's report, a list of all expenses of the Secretary's office has been sent to him each month.

I wish here to express my appreciation of the co-operation of the other officers of the Club in carrying on the campaign for new members. I also wish to acknowledge the assistance given me by my wife, Mrs. Leonora K. Gloyd, without whose help in the clerical work my activities in connection with the membership drive would have been much more limited.

Yours very sincerely,

HOWARD K. GLOYD, *Secretary.*

COPY OF THE TRUST AGREEMENT AS ADOPTED AT THE CHICAGO MEETING AND RE-WRITTEN BY THE COMMITTEE UNDER INSTRUCTION

THIS AGREEMENT, made and entered into this.....day of..... A. D. 1927, by and between the Wilson Ornithologcal Club, a corporation duly organized and existing under and by virtue of the laws of the State of....., having its principal place of business at....., party of the first part, and the Illinois Merchants Trust Company, a corporation duly organized and existing under and by virtue of the laws of the state of Illinois, having its office in Chicago, Ill., as TRUSTEE, party of the second part, *Witnesseth*:

WHEREAS, the said party of the first part is desirous of collecting an Endowment Fund for educational purposes, more especially the promotion and dissemination of ornithological knowledge, the income from which Endowment Fund is to be especially used for the editing, printing, and mailing of the WILSON BULLETIN, a publication issued by the Wilson Ornithologcal Club, and for other educational purposes not inconsistent therewith,

NOW THEREFORE, said party of the first part, for and in consideration of the sum of One Dollar ($1.00) and other valuable considerations, has paid over and delivered to said party of the second part the sum of.....

TO HAVE AND TO HOLD the same upon the uses and trusts for the purposes following, that is to say:

FIRST: To receive and hold the same and to collect the income therefrom; to sell, assign, exchange, encumber, improve and convey the said trust property, or any part thereof; to sell, alter and change the investment thereof from time to time and to collect and receive all dividends, interests, rests, issues, and profit therefrom; to invest and reinvest the principal and proceeds thereof, it being understood and agreed, however, that all investments and all sales, assignments, exchanges or encumbrances are to be made by and with the consent and approval of the Endowment Fund Committee of the Wilson Ornithological Club, which Committee is to consist of three members appointed by the President of the Club, one member for one year, one for two years and one for three years and at the expiration of each respective term aforesaid, a member shall be appointed for three years or until his successor shall be appointed; any vacancy in the Committee being filled likewise for the unexpired term of the member who has vacated and the President shall annually inform the party of the second part as to the personnel of the Committee. Said Trustee shall have full power and authority to bind the trust estate without making itself individually liable, and to perform any and all other acts which it may deem proper for the carrying out of the purposes of this agreement.

SECOND: To charge to the Fund all costs, charges, and expenses of said trust estate and the management thereof, including a fee of ½ of 1 per cent.

per annum on the first $50,000 principal of such fund and ¼ of 1 per cent. on all the principal in excess of $50,000, until and unless the amount of the fee be changed by agreement between said Trustee and the Wilson Ornithological Club as represented by its President and Treasurer, the signature of these two officers to be taken as binding said Wilson Ornithological Club as to said compensation.

THIRD: To pay, use, and expend the net income from said trust estate in installments for the dissemination of ornithological knowledge and information as that purpose shall be accomplished by the editing, printing, and mailing of said WILSON BULLETIN, said installments to be paid quarterly to the Treasurer of the said Wilson Ornithological Club, and the receipt signed by such Treasurer, setting forth that he has received such installment for such purpose, shall be sufficient to relieve said Trustee from responsibility for such installment covered by such receipt. In the event that said Wilson Ornithological Club shall be dissolved, or cease to exist as an actual organization, said Trustee shall pay, use and expend said net income in perpetuity for the dissemination of ornithological knowledge and information through the medium of some publication published or distributed by the successor or successors of the present corporation if such can be determined, or if there be no successor or successors, then by some similar organization having more than a state-wide membership. But before using said income for the support of another publication said Trustee shall use reasonable care and diligence to satisfy itself that said WILSON BULLETIN shall have been definitely and permanently discontinued. Nothing herein shall be construed, however, as limiting or preventing said Wilson Ornithological Club from changing the name of its publication from the WILSON BULLETIN to some other name which said Club shall decide upon, it being expressly understood that this fund is primarily intended for the support of the publication issued by said Wilson Ornithological Club, or by its successor or successors, whether named the WILSON BULLETIN or otherwise.

FOURTH: It is understood and agreed that the Wilson Ornithological Club, its members or other persons, corporations, firms or organizations, with the consent of the Trustee, may from tme to time deliver additional funds to the party of the second part, which shall be taken and held upon the same trusts and distributed in the same manner hereinbefore mentioned.

FIFTH: Said party of the second part may resign and discharge itself of and from the trusts hereby created at any time while said Wilson Ornithological Club shall remain in existence, giving thirty (30) days notice before such resignation is to take effect, and in case of a vacancy in the office of Trustee by resignation or otherwise, a successor or successors may be appointed by a resolution duly adopted by a majority of the then officers, councillors and Endowment Fund Committee of said Wilson Ornithological Club, but said new Trustee or Trustees shall be a responsible corporation authorized by law to transact trust functions; or in case a new Trustee shall not be appointed as herein provided within thirty (30) days after a vacancy shall occur, then said party of the second part may apply to any court of original general jurisdiction in said County of..... for the appointment of a new Trustee upon such notice as shall be in accordance with the rules and practice of the court, and such Trustee or Trustees appointed as hereinbefore provided, or by such court, being corporate under state law as above mentioned, shall accept such appointment by an instrument in writing duly signed, and upon the acceptance of such appointment, such Trustee or Trustees

shall thereby and thereupon become and be vested with all the powers, rights, estate, and interests granted to or conferred upon said party of the second part by these presents and charged with all the duties and obligations herein mentioned without any further assurance of conveyance whatsoever. It is further understood and agreed that upon the decision of a majority of the then officers, councillors and Endowment Fund Committee of the said Wilson Ornithological Club this trust agreement may be revoked and rescinded and a new contract entered into without delay to insure the conservation of the Fund.

SIXTH: Said Trustee shall render an annual report to the President and members of the Endowment Fund Committee of the Wilson Ornithological Club, showing the amount of the principal of the trust funds, the income thereof received during the past year, the donations received for said fund during the year, and the amount of payments therefrom for all purposes including payments made to the Treasurer of said Club; said report to be made in time to be exhibited at the annual meeting of said Club; said annual reports to be continued to be made to such society or club as may be concerned with the publication of any periodical succeeding the WILSON BULLETIN or succeeding the Wilson Ornithological Club, as hereinbefore provided.

SEVENTH: It is understood and agreed that, except by a vote of at least three-fourths (¾) of the entire membership of the Wilson Ornithological Club, the principal amount of the Fund may not be reduced or diminished other than by unavoidable losses or depreciation.

IN WITNESS WHEREOF, the said party of the first part has caused these presents to be executed by its President and Secretary and its corporate seal affixed, and said party of the second part, to evidence its acceptance of the trusts hereby created, has caused these presents to be executed by a Vice President, attested by an Assistant Secretary, and its corporate seal to be hereunto affixed, the day and year first above written.

WILSON ORNITHOLOGICAL CLUB

By.....
President

By.....
Secretary

ILLINOIS MERCHANTS TRUST COMPANY

By.....
Vice-President

Attest.....

CONSERVATION

By the Editor

The country now seems to be facing an important crisis in the administration of its wild life. The various conservation forces of the country are agreed that the "remnant" of wild life must be saved. But there is a sharp difference of opinion as to the best method of doing it. Dr. W. T. Hornaday is the spokesman for the great unorganized mass of interested people. He is advocating a general reduction in the bag limit and in the open season as the most effective and prompt means of recovery. On the other hand the American Game Protective and Propagation Association is leading in the advocacy of the principle of game refuges and propagation as the all-sufficient remedy. At present there seems to be a deadlock on the proposition, reduction of bag limit versus game refuges.

Since there are excellent arguments in favor of both methods we wonder why the wild life cannot be given the benefit of both. The power to establish game refuges on the scale proposed by the professional conservationalists lies with Congress. The power to bring about a federal reduction in the bag limit seems to rest in the Department of Agriculture, particularly the Biological Survey. The Biological Survey refused to order a reduction in the bag limit, stating that the "Advisory Board" advised against it. The "Advisory Board" seems to be an unofficial group of men who have become prominent in conservation work, whose collective advice is sought by the Biological Survey before any changes can be made in the Regulations under the Migratory Bird Law. The Chairman of this Board is Mr. John B. Burnham, who is also President of the American Game Protective Association. The latter organization is supported and financed by the arms and ammunition manufacturers.

There are now before Congress (unless disposed of before we go to press) two bills which are designed to have a profound effect upon the supply of game birds in the country, and, likewise, upon the sport of hunting. The one is known as the "Migratory Bird Refuge and Marshland Conservation Bill," (technically designated as H.R.7479, S.2607). The other is known as the "Copeland-Merritt Bill," (H.R.10433, S.3580). Most of our readers are likely to be familiar with these bills and their objects. If any are not fully informed we hope that they may become so—in the interest of the welfare of our wild life.

The first of these bills has been before Congress through several sessions, and is variously known as the "Migratory Bird Refuge Bill," the "Public Shooting Grounds Bill," the "Marshland Conservation Bill," etc., etc. It is sponsored by the American Game Protective and Propagation Association, an organization maintained and financially supported, according to the records, by the arms and ammunition manufacturers. It has also won the support of the United States Biological Survey, the National Association of Audubon Societies, and other organizations whose judgments concerning the welfare of our wild life we have, in the past, regarded with greatest confidence. Opposition to this bill has been slow in developing, but is now stronger than ever, and it seems doubtful if the bill will ever pass Congress.

The Copeland-Merritt Bill provides for a general reduction in the federal bag limit on wild fowl, and was presented to Congress only after every possible effort had been made to induce the Biological Survey to make the necessary amendments

in the Regulations under the Migratory Bird Law. This bill is opposed by the American Game Protective Association, the Biological Survey, the Audubon Societies, and almost the same groups as are advocating the Public Shooting Grounds Bill.

We will venture to give here a very brief summary of the literature which we have seen bearing on these two bills. This literature is varied in its nature; some of it is in the form of printed pamphlets, while the rest consists of printed or mimeographed circulars and letters. It is as follows:

1. "Save the Marshlands." This circular is a brief statement in favor of the Migratory Bird Refuge and Marshland Conservation Bill (H.R.7479, S.2607). This bill is a slight modification of the old Bird Refuge and Public Shooting Grounds Bill, which had been before the 67th and 68th Congress. This circular was very widely distributed.

2. "Wasting America's Game Birds." Pubished January 5, 1926. We find in this booklet 61 pages of facts and arguments in support of a reduction in the federal bag limit on game birds. It is signed by a large number of people composing the "National Committee of One Hundred," but we may assume that the guiding mind in its preparation was Dr. W. T. Hornaday. It is a convincing document. Following this showing a bill, known as the Copeland-Merritt Bill (H.R.10433, S.3580), was introduced in Congress. This bill provides for a reasonable reduction in the bag limit on practically all migratory game birds, and is a definite step in the interest of game birds. It is opposed by the powder and ammunition interests, as well as by some recognized conservation authorities. No one has yet been able to point out any selfish motive behind this bill.

3. "Our Migratory Wild Fowl and Present Conditions Affecting Their Abundance." By E. W. Nelson, Chief, U. S. Bureau of Biological Survey. Issued March, 1926. This appears to be a hastily prepared document aiming to show that ducks and geese have not been materially decreased in numbers in recent years; and that such decrease as there may be is attributable to such causes as "extraordinary weather conditions" (page 3), "scanty rainfall," "drainage" (page 17), "losses by disease" (page 14), etc. The importance of a reduction in bag limit is minimized and opposed.

4. "Federal Power and Duck Bag Limits: Facts. A Study." Bulletin No. 6, National Association of Audubon Societies. Issued about May 1, 1926. This is an anonymous article of sixteen pages, issued and very widely circulated by the Audubon Societies as a part of the propaganda in opposition to a reduction in the federal bag limit on wild fowl. In our opinion it is a highly prejudiced argument, and unworthy of the support of the organization which has sponsored it. The mere fact of anonymity immediately raises the question of sincerity. We conclude that the Audubon organization has considerably modified its original platform and purpose.

5. Extension of Remarks of Hon. Fiorello H. La Guardia, of New York, in the House of Representatives on Thursday, April 27, 1926. The speech was in opposition to the Migratory Bird Refuge and Marshland Conservation Bill (H.R.7479, S.2607) on the ground that it created, not sanctuaries, but shooting grounds. It also pointed out the selfish interest of the American Game Protective Association in supporting this bill. On page 5 we find the following quotation

from a letter said to have been written to "one of the ammunition makers" by the President of this Association:

> The sentimentalists led by Doctor Hornaday are demanding cuts in the bag limits and seasons, which if carried to the logical conclusion means the reduction of shooting opportunities to the vanishing point. Of course, if this happens, the sale of firearms and ammunition will be seriously affected.

6. "Save the Marsh Lands." This is the same piece of matter as mentioned above under (1), but in this case sent out from Oshkosh, Wisconsin, in the stamped envelope of the National Campaign Committee, Game Refuge Bill, 2273 Woolworth Building, New York, N. Y. Oshkosh is known to be a center of an industry which harvests native wild duck foods for the market. This industry is dependent upon the sport of wild fowl hunting.

7. A letter dated July 25, 1926, signed by the Chairman and Secretary of the National Committee of One Hundred to Retard the Extermination of American Game Birds and to Oppose Wasteful Killing. This letter is a public protest against Bulletin No. 6 of the Audubon Societies, mentioned above, and remarks that by its "opposition to lower federal bag limits, the National Association of Audubon Societies is recklessly ignoring the spirit in which it was founded and the best traditions of its past." Accompanying this letter is a printed circular entitled, "A Reply to Misleading and Unfair Propaganda Against Reducing the Bag Limit on Ducks."

8. A letter dated August 6, 1926, signed by the officers of the National Committee of One Hundred, accompanied by a printed circular entitled, "A Move for a New Federal Game Act." This is a statement of policy and program, and an appeal for financial aid, by the forces supporting the Copeland-Merritt Bill (H.R.10433).

9. "Who's Who and Why." This is a printed circular distributed on October 12, 1926, from the office of Arthur D. Holthaus, 5350 Waterman Ave., St. Louis, Missouri. This is a reprint of the speech of Hon. Fiorella H. LaGuardia in the House of Representatives. It is very good reading, and perhaps copies of it may still be obtained from the address given above.

10. "New Game Refuge Issue Sharply Defined—No Federal Millions for High Limit Duck Killers." Received November 13, 1926. This is newspaper material sent out by the National Committee of One Hundred. It is controversial, but concludes with the advice that "all states collect and keep all the hunting-license fees of their sportsmen, and expend them within their own boundaries."

11. "Do We Want Federal Super Wardenship?" Received November 23, 1926, from Mr. Holthaus, of St. Louis. This is a reprint of an editorial in the November number of *Forest and Stream*, which is opposed to the Bird Refuge and Marshland Conservation Bill (H.R.7479, S.2607) for various reasons.

12. Speech of Hon. William H. King, of Utah, in the Senate of the United States, Monday, May 24, 1926. From the Congressional Record. Received December 2, 1926. This is a lengthy and instructive document which cannot be summarized here. It is headed as follows: "The Gunmakers' Migratory Bird Bill. The question before us is this: Is Congress willing to establish public shooting grounds upon which the migratory birds, under the protection of the treaty with Canada, may be slaughtered at the command of the shotgun and

shotgun shell manufacturers? There are but two objectives in this bill—to afford shooting grounds to promote the sale of shotgun shells and to increase the bureaucratic power of the Biological Survey, not over the migratory birds, but over the people of the country. The gunmakers must get out of the conservation situation. The way to get them out is to defeat this bill."

13. "The Persecuted Game Birds Demand a Square Deal, but NOT the Passage of the Public-Shooting-Grounds Bill." Issued December 10, 1926, by the Permanent Wild Life Protection Fund.

14. "Sportsmen and Government Officials Discuss Welfare of Wild Fowl." Issued as a news-letter by the Press Service of the Department of Agriculture, January 21, 1927. We learn here that a meeting was held in the United States National Museum on January 29, and presided over by R. W. Dunlap, Assistant Secretary of Agriculture. The question of bag limit was, apparently, the chief subject of discussion. The letter closes with this statement: "The general feeling expressed was against any change in the existing regulations on bag limits, but many felt that the most effective additional protection needed for the birds was a shortening of the open seasons." It goes without saying that, with proper care in the selection of individuals, a meeting may be had which will take any desired action upon any debatable question.

15. "The Unfinished Treaty." By Jack Miner, of Kingsville, Ontario. Received January 27, 1927. This mimeographed article of eleven closely printed pages is, in many respects, the best reading we have seen recently on the subject of bird protection. It contains a merited rebuke to the National Association of Audubon Societies for its part in the issuance of "Bulletin No. 6."

It is a wholesome, whole-hearted plea for the protection of the wild fowl, and the author is emphatically in favor of the reduced bag limits. We notice that this article has been fully reprinted in the February number of the *Illustrated Canadian Forest and Outdoors*, 51 Sparks Street, Ottawa, Canada. This magazine is twenty cents per copy and we hope that a great many will take the trouble to secure a copy and read Jack Miner's plea, under the title, "A Heart to Heart Talk."

16. "Paul G. Redington is Named Chief of Biological Survey." This is the heading of a news-letter issued February 12, 1927, by the Press Service of the Department of Agriculture. Doctor E. W. Nelson has been associated with the Department of Agriculture since 1890, and has been Chief of the Biological Survey since 1916. Beginning in the 70's Dr. Nelson has been an indefatigable explorer and student of the life of the northland. His scientific output has been large and of importance. If he has made an error in directing the Biological Survey in policy on the matter of bag limits, we may believe that it is one of judgment and not of heart. The newly appointed Director of the Survey has been chosen outside the personnel of the latter. We do not know what may be his views on the problem of bag limits. We hope, however, that he may be free from the domination of the Advisory Board, the American Game Protective Association, or any other outside organization.

SUMMER COURSES IN ORNITHOLOGY

It is the desire of the WILSON BULLETIN to use this page in each March issue for the announcement of summer courses in ornithology in the inter-mountain region. We will be glad to have our readers inform us of other courses for inclusion in the future.

In Colorado.

The Colorado State Teachers College regularly conducts Laboratory courses in Natural Sciences at Estes Park. The station is known as Camp Olympus, and is located within 53 miles of the Rocky Mountain National Park.

From June 1-14 a course in Bird Study will be conducted by Dr. E. C. Harrah, of the Colorado State Teachers College. This course yields three quarter hours of credit.

From June 15 to July 16 a course in Bird Study will be conducted by Mr. A. E. Shirling, of the Kansas City Teachers College. This course yields four Quarter hours of credit.

For further information address Dr. John R. Bell, Director, Colorado State Teachers College, Greeley, Colorado.

In Minnesota, the Dakotas, and Wyoming.

Morningside College, Sioux City, Iowa, announces a ten-weeks course in ornithology, with college credit, for the summer of 1927. The first and tenth week will be in residence; the other eight weeks will be in the field. Traveling by motor the class will pass through Minnesota, North Dakota, Montana, Wyoming, Yellowstone Park, and the Black Hills of South Dakota. This extensive trip will afford opportunity to make brief studies of the bird life in the Arctic-Alpine, Hudsonian, Canadian, Transition (Alleghanian and Transition), and the Upper Austral (Carolinian and Upper Sonoran) life zones.

For information as to dates, costs, equipment, etc., address Professor T. C. Stephens, Morningside College, Sioux City, Iowa.

In Michigan.

The Biological Station at Douglas Lake, maintained by the University of Michigan, will offer the usual course in ornithology.

Address Dr. George R. LaRue, Director, Ann Arbor, Michigan.

SALE OF BACK NUMBERS

The entire stock of back numbers of the WILSON BULLETIN up to 1925, must be moved from their present storage quarters before summer. In order to reduce as much as possible the bulk for re-storage the following offer is made, to terminate on June 15, 1927.

Numbers 15, 22, 46, 65, and 94 are out of print and cannot be supplied. Of No. 29 four copies remain; of No. 30 eight copies; of No. 34 and 35 six copies each; of No. 36 eight copies; and of No. 37 five copies.

The total available file up to 1924 inclusive, exclusive of these six scarce numbers above listed, will be sold for $15.00 per set. These six scarce numbers will be sold for $1.00 each per copy.

The offer here made includes only the WILSON BULLETIN, not its predecessors (see back cover page of recent numbers of the WILSON BULLETIN. The first 27 volumes (new series) have been regularly listed at $1.00 each; the 4 volumes from 1921 to 1924 inclusive, are listed at $1.50 each.

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